THE DRUG AND COSMETIC INDUSTRY

VOL. XXXV, No. 2 Established 1914 AUGUST, 1934

THOMAS R. FARRELL, Editor
ELMER F. SHEETS, Managing Editor
FRAZER V. SINCLAIR, Business Manager
FRANCIS CHILSON, Technical Editor
HARRY G. KELBLY, Circulation Manager

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Front Cover

On the front cover this month we show various scenes of the production and packaging of a few of the products of the industry.

THE DRUG AND COSMETIC INDUSTRY is published monthly by Drug Markets, Inc., Frazer V. Sinclair, *President and Treasurer;* Thomas R. Farrell, *Vice-president and Secretary.* Publication Address, 28 Renne Ave., Pittsfield, Mass. Editorial and General Office, 101 West 31st St., New York, N. Y.

Subscription price—$2.00 a year, in advance, Foreign Countries, $3.00. Single copies, 25c; Back issues 50c. Entered as Second Class Matter, January 1, 1928, at the Post Office at Pittsfield, Mass., under the Act of March 3, 1879.

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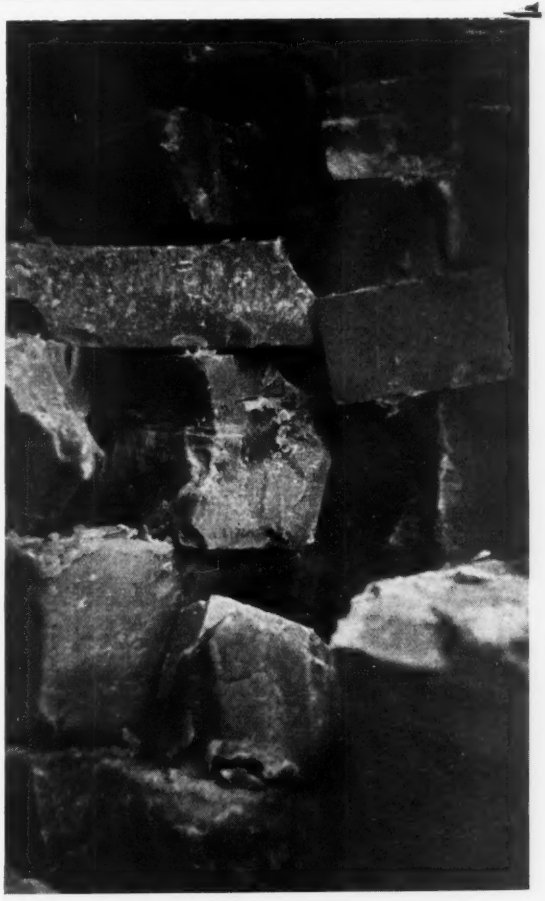

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Innis, Speiden & Co., Inc.
M. W. Parsons, Imports
Pfaltz & Bauer, Inc.

Alcohol
American Commercial Alcohol Corp.
Empire Distilling Corp.
A. K. Hamilton
Rossville Commercial Alcohol Corp.
U. S. Industrial Alcohol Co.

Alkaloids
Abbott Laboratories
J. T. Baker Chemical Co.
Mallinckrodt Chemical Works
Merck & Co., Inc.
N. Y. Quinine & Chemical Works

Aromatic Chemicals, Essential Oils, Flavors
Budd Aromatic Chemical Co., Inc.
W. J. Bush & Co., Inc.
California Fruit Growers Exchange
Dodge & Olcott Co., Inc.
P. R. Dreyer, Inc.
E. I. du Pont de Nemours & Co. Inc.
Compagnie Duval
Evergreen Chemical Co., Inc.
Benj. French, Inc.
Fritzsche Brothers, Inc.
General Drug Co.
Givaudan-Delawanna, Inc.
George Lueders & Co.
Magnus, Mabee & Reynard, Inc.
Compagnie Parento, Inc.
Edwin Seebach Co
Geo. Silver Import Co.
A. M. Todd Co.
Ungerer & Co.
van Ameringen-Haebler, Inc.
Van Dyk & Co.
Albert Verley, Inc.

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W. H. Bowdlear Co.
Koster-Keunen
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Smith & Nichols, Inc.
Will & Baumer Candle Co.

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W. Benkert & Co., Inc.
J. L. Hopkins & Co.
Peek & Velsor, Inc.
S. B. Penick & Co.

Chalk
Industrial Chemical Sales Co., Inc.
John & E. Sturge, Ltd.

Citric Acid
H. J. Baker & Bro.
J. T. Baker Chemical Co.
California Fruit Growers Exchange
Dodge & Olcott Co., Inc.
Mallinckrodt Chemical Works
McKesson & Robbins, Inc.
Merck & Co., Inc.
N. Y. Quinine & Chemical Works
Chas. Pfizer & Co., Inc.

Cod Liver Oil
W. Benkert & Co., Inc.
Consumers Import Co.
P. R. Dreyer, Inc.
McKesson & Robbins, Inc.
S. B. Penick & Co.

Colors
Ansbacher-Siegle Corp.
Fezandie & Sperrle, Inc.
Interstate Color Co., Inc.
H. Kohnstamm & Co., Inc.
Leeben Chemical Co., Inc.
R. F. Revson Co.

Gums
Paul A. Dunkel & Co., Inc.
Frank-Vliet Co., Inc.
J. L. Hopkins & Co.
Innis, Speiden & Co.
S. B. Penick & Co.
Thurston & Braidich
Jacques Wolf & Co.

Lanolin
American Lanolin Corp.
Th. Goldschmidt Corp.
Innis, Speiden & Co.
N. I. Malmstrom & Co.
Pfaltz & Bauer, Inc.

Lipsticks, Rouges, Etc.
American Advertised Products, Inc.

Magnesia
Schofield-Donald Co., Inc.

Medicinal Chemicals
Abbott Laboratories
J. T. Baker Chemical Co.
Benzol Products Co.
California Fruit Growers Exchange
Dow Chemical Co.
R. W. Greeff & Co., Inc.
Heyden Chemical Corp.
Mallinckrodt Chemical Works
Merck & Co., Inc.
Monsanto Chemical Co.
N. Y. Quinine & Chemical Works
Chas. Pfizer & Co., Inc.

Mineral Oil
M. W. Parsons, Imports
S. Schwabacher & Co.
L. Sonneborn Sons, Inc.
Stanco Distributors, Inc.

Neutral White Soap
J. L. Hopkins & Co.
S. B. Penick & Co.
John Powell & Co.

Rubber Latex
Heveatex Corporation

Stearates
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Mallinckrodt Chemical Works
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Chas. Mathieu, Inc.
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New Jersey Zinc Co.
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Penn. Glass Products Co.

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Carr-Lowrey Glass Co.
Dura Colors, Inc.
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Hagerty Bros. & Co.
Hazel-Atlas Glass Co.
Maryland Glass Corp.
Owens-Illinois Glass Co.
Swindell Brothers, Inc.

Boxes & Cartons
H. R. M. Gordon
Green Brothers, Inc.
Karl Voss Corp.
Lowe Paper Co
Young Bros., Inc.
Douglas Young, Inc.

Caps
Aluminum Seal Co.
Arco Crown Cork & Cap Co.
Armstrong Cork & Insulation Co.
Bridgeport Metal Goods Mfg. Co.
Chase Brass & Copper Co.
General Plastics, Inc.
Ferd. Gutmann & Co.
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National Collapsible Tube Co.
New England Collapsible Tube Co.
White Metal Mfg. Co.

Corks
Arco Crown Cork & Cap Co.
Armstrong Cork & Insulation Co.

Cosmetic Cases
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Chase Brass & Copper Co.

Filter Paper
August Giese & Son

Glassine Paper
Riegel Paper Corp.

Labels
John Horn

Machinery (Packaging)
John W. Ayers & Son (Pill & Tablet)
Arthur Colton Co. (Tube & Tablet)
Karl Kiefer Machine Co. (Bottle)
Pneumatic Scale Corp., Ltd. (Capping & Labeling)
Geo. G. Rodgers Co. (Tube)
F. J. Stokes Machine Co. (Tube & Tablet)
Stokes & Smith Co. (Powder)
U. S. Bottlers Machinery Co. (Bottle)

Machinery (Production)
Abbe Engineering Corp.
Alsop Engineering Corp.
Ertel Engineering Corp.
Manton-Gaulin Mfg. Co.
New England Tank & Tower Co.
Pfaudler Company
George G. Rodgers Co.
Chas. Ross & Son Co.
F. J. Stokes Machine Co.

Plastic Materials
General Plastics, Inc.

Tanks, Kettles
Alsop Engineering Corp
Ertel Engineering Corp.
Pfaudler Company

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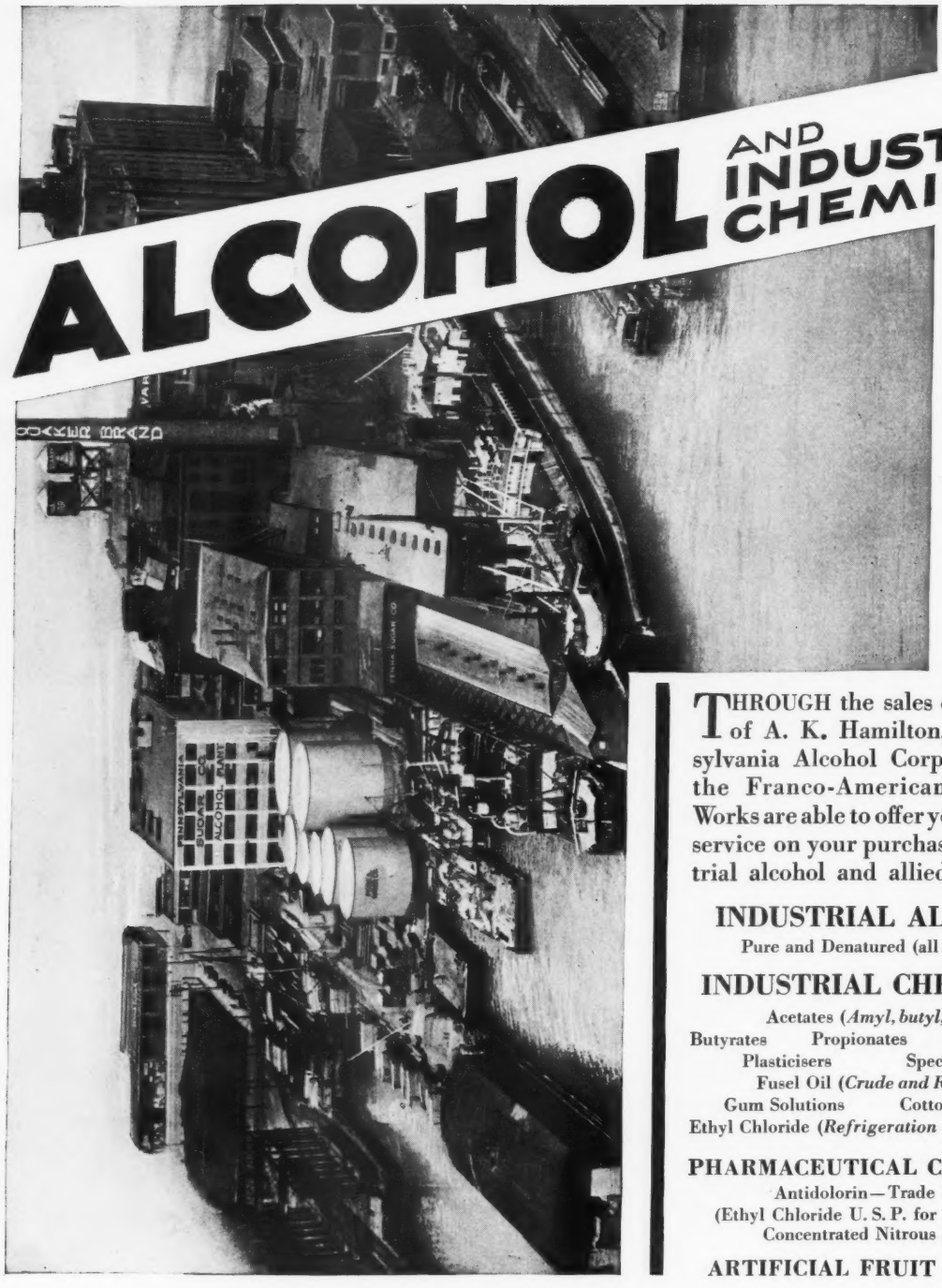

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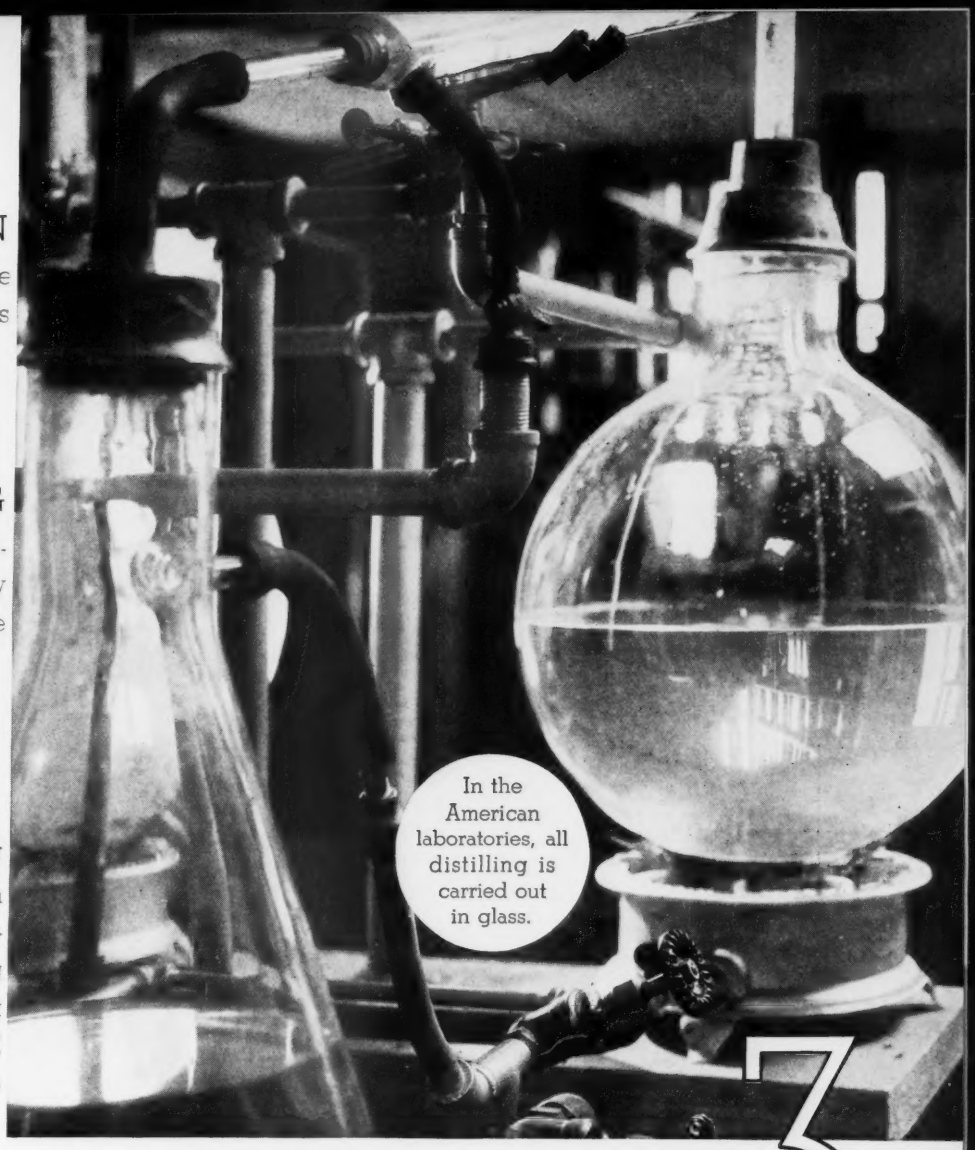

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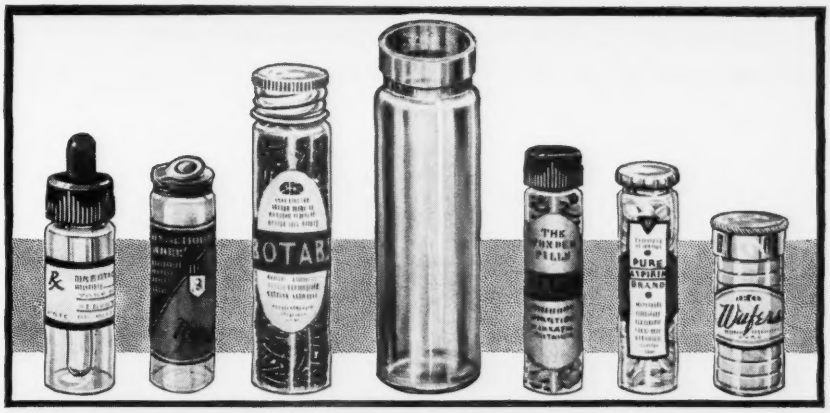

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Zinc Oxide
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HAIR TONICS
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Merck & Co. Inc. produce more than 3000 chemicals, every one of which is subject to rigid laboratory control and must conform to definite standards of purity and uniformity. Only the highest grade of raw materials obtainable is used in the production of Merck Chemicals and each product is guaranteed to meet modern manufacturing requirements in every particular. This is a factor of primary importance to manufacturers of cosmetics, toilet preparations and allied products.

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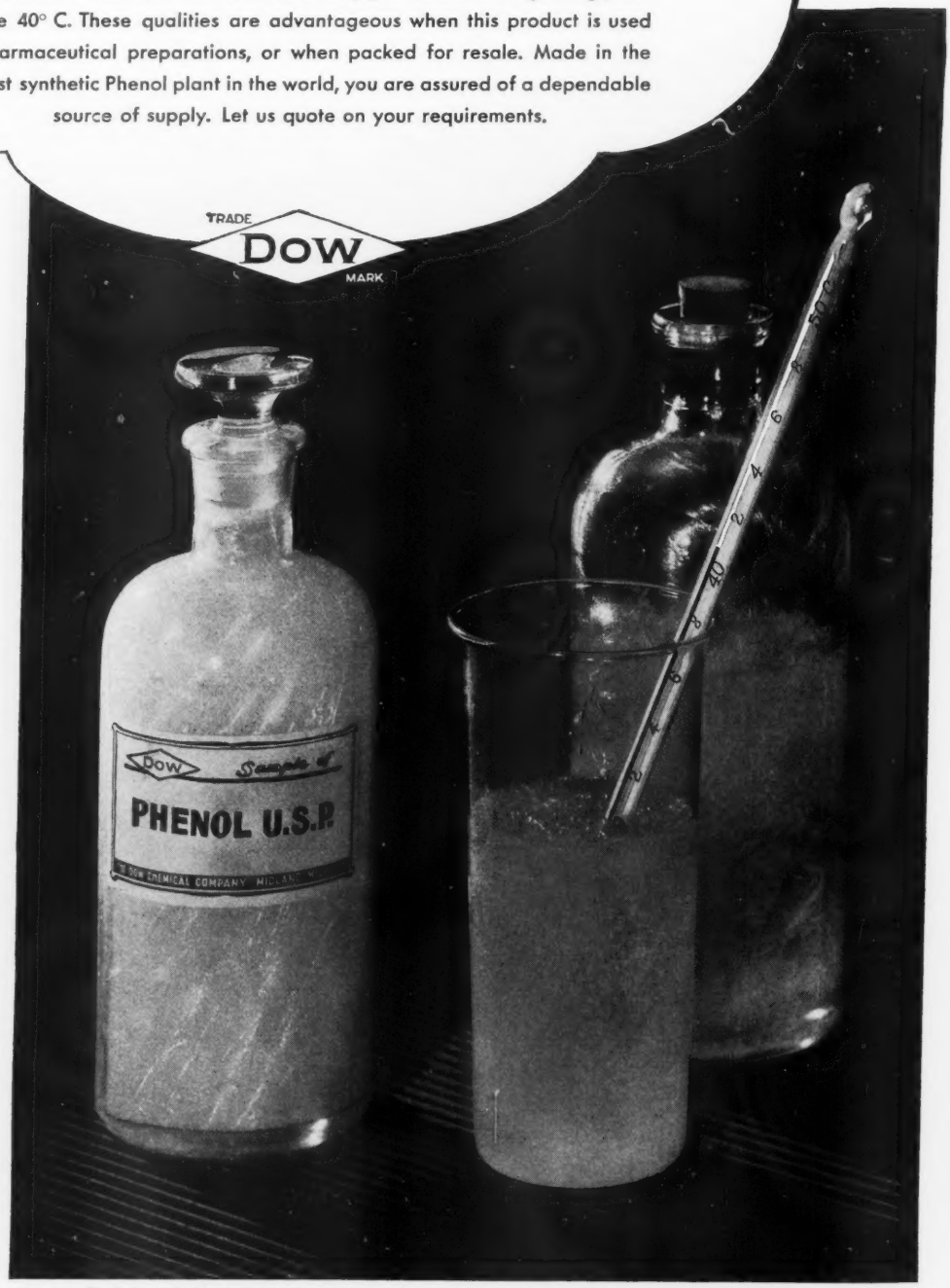

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- Cinchophen, U. S. P.
- Epsom Salt, U. S. P. Recrystallized
- Ferric Chloride, U. S. P. (Solution or Crystals)
- Magnesium Sulphate, Desiccated
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- Methyl Salicylate, U. S. P.
- Salicylic Acid, U. S. P.
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- Minor Salicylates
- Sodium Benzoate, U. S. P.
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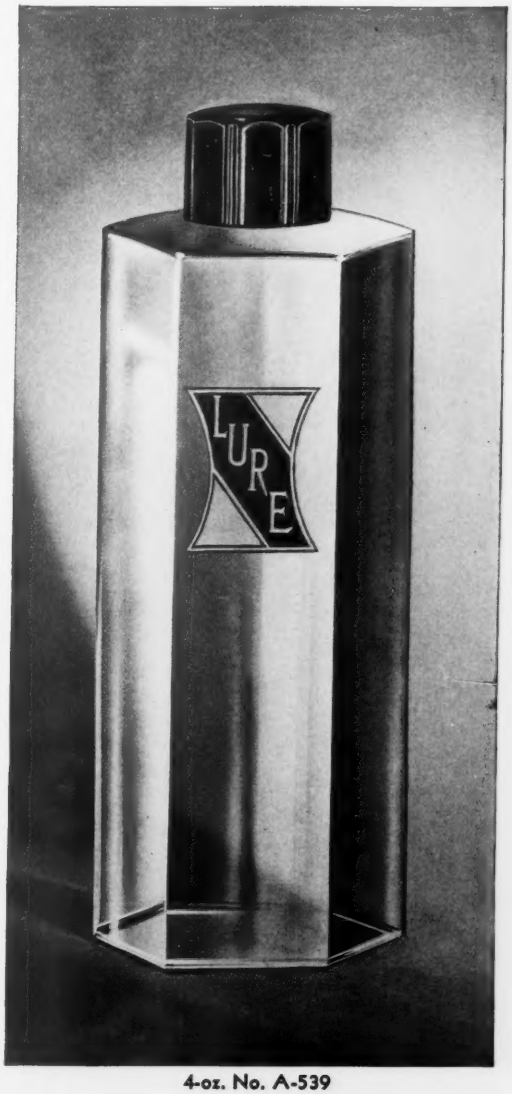

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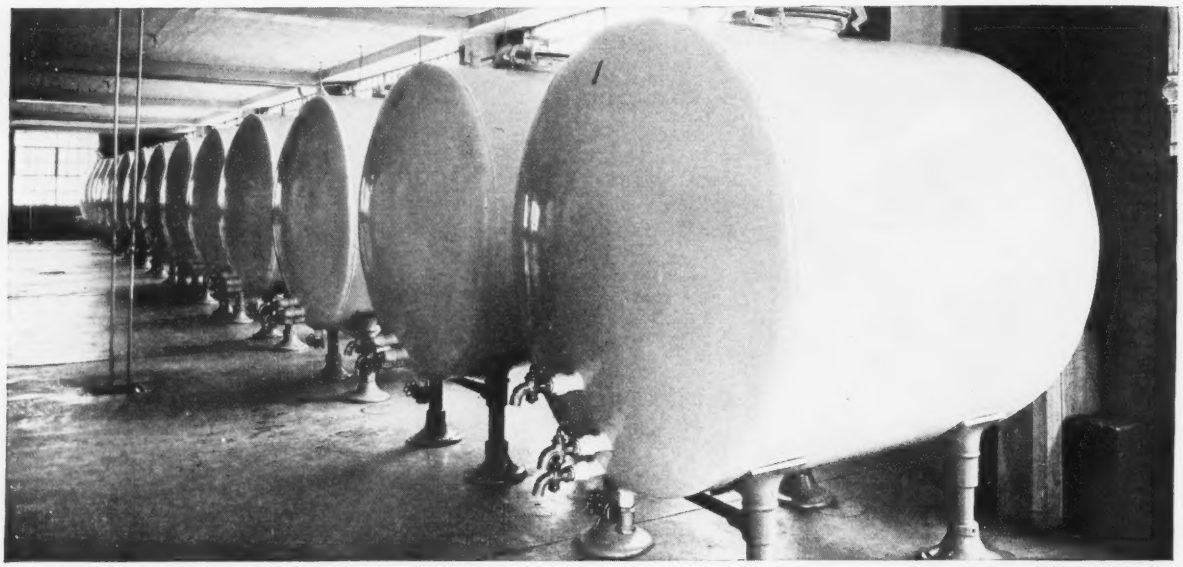

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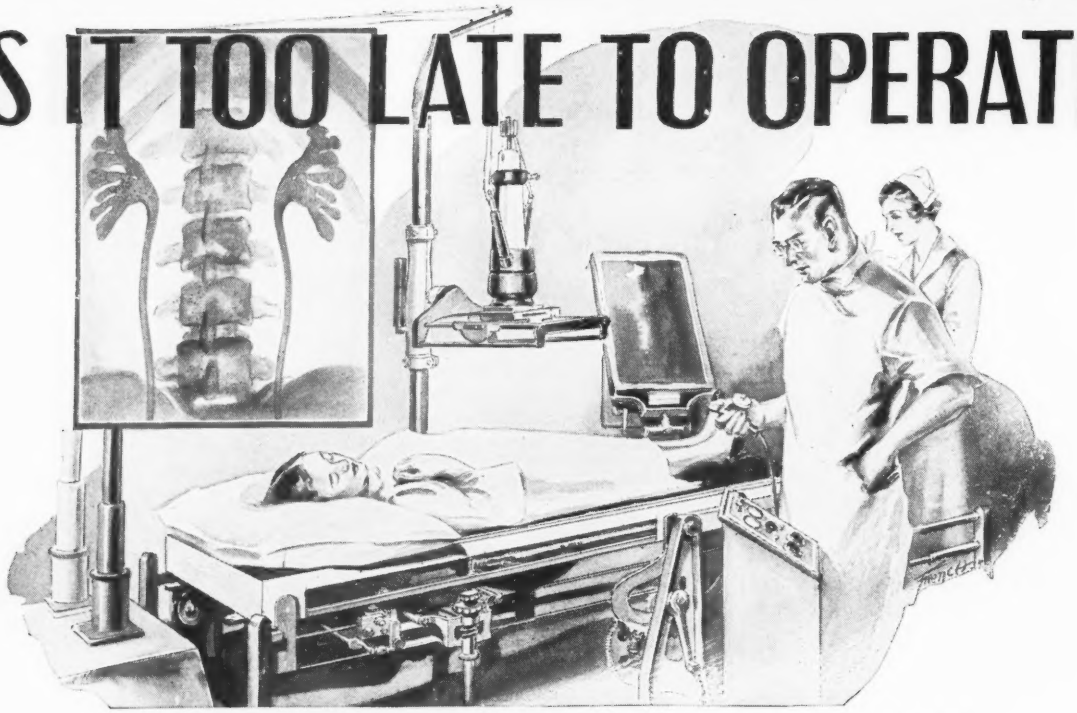
IS IT TOO LATE TO OPERATE



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Nearing The End

As THE price maintenance experiment continues, dissatisfaction appears in practically every branch of the trade. First the retailers are not wholly satisfied as the whole price structure is being lowered in the districts remote from large city influence as some of the retailers in these territories take advantage of the suggested minimum 21 per cent mark-up instead of the 33 1/3 per cent mark-up which was formerly quite generally maintained. So to these retailers, the experiment is bringing sad tidings. Secondly, the chains who were mainly responsible for bringing the experiment about, and who have been most lavish in their gratitude to manufacturers, are being undersold by the cut-price stores who are still obtaining goods despite the honest efforts of manufacturers to keep the goods out of these channels. Wholesalers and retailers are quite generally blamed for this distribution of price maintained goods to cut-price channels. Thirdly, the manufacturers are not able to give the independent retailers and the wholesalers what they want due to the fact there is cheating among the ranks of these two distributive divisions of the trade, and in return for their futile efforts manufacturers are suffering a sharp loss of volume.

All of which means that the price maintenance experiment is tottering and the end might not be far off. Earnest efforts on the part of those who have played fair during the experiment are being made to strengthen the situation, but these efforts do not seem to avail much. And if they fail, price maintenance will fail for all time just as prohibition failed. There will be no revival of the idea once the interested parties throw up the sponge.

Counterfeiting

The movement of the Perfumery Importers Association to actively fight fraudulent imitation and counterfeiting of perfumes and cosmetics is a most laudable one. Cooperative work to overcome these twin evils is something which should have been undertaken many long years ago. Now that it has been started let us hope that it will be aggressively followed through.

Drug manufacturers have likewise suffered from these evils for many years, and because of the public health danger from the fraudulent imitating and counterfeiting of drugs, have tried to have a law passed in Washington making the practice a felony. Thus far they have been unsuccessful in having the proposed measure enacted into law, but the issue is certain to be pressed.

Unfortunately there is no cooperative movement on the part of drug manufacturers to fight these evils. Several attempts were made to start a cooperative movement, but none of them were successful. Perhaps if the campaign of the Perfumery Importers proves effective, the drug manufacturers might be willing to follow suit.

The activity of the Government to check the flow of counterfeit alcoholic beverages by licensing the bottle manufacturers and requiring that all bottles be destroyed after they are empty clearly indicates the intense interest which the Government takes in counterfeiting when loss of revenue is threatened. Too bad that the Government is not interested to the same extent in the public health or in theft from individuals.

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Bio-Assay

There can be no question in the mind of anyone acquainted with the facts that biological assay of medicinal products is far from a satisfactory method of measuring the potency of these products or even of obtaining uniformity in the various lots. There are few, if any of the methods in the Pharmacopoeia which will give accurate results in the hands of different operators of average skill. The bio-assay of ergot has been diligently studied for the past seven years, yet it does not seem as though a real satisfactory method is much nearer than it was when the research was started. The same fact is true of digitalis. Methods of assay of Vitamin A are many and varied. Yet the results of skilled operators all using the rat method to test a standard lot of oil to be distributed by the Food and Drug Administration varied to such an extent as to make one very seriously question the possibility of ever working out a real satisfactory method using rats.

When it is considered that these methods are based upon the assumption that the effects upon a normal animal are comparable to the effects upon an abnormal, or sick, human being, it is difficult to conceive why the methods are still used. And when the permissible error in the assay of many of these products is considered, the wonder that the methods are still in use becomes all the greater.

The responsibility of developing satisfactory methods of assay rests squarely upon pharmacy, and particularly upon the manufacturing pharmacists who distribute the products standardized by bio-assay. The medical profession has a partial responsibility and can be of great aid, yet the problem is not one belonging primarily to the physician. The leading manufacturers of the country have worked unselfishly to solve many of the problems of bio-assay, but the greater part of these problems, are still unsolved. However, this should not dampen their ardor, as the benefits which will result from the discovery of accurate methods will indeed be great.

●

Shiny Make-up

In Hollywood a vogue has started using a new shiny make-up instead of the popular method of make-up which kills all shine with powder. The new vogue is being introduced all along the Western Coast and perhaps in a short time will make its appearance in the East. The new idea in make-up is a complete reversal of the time-honored method since powder is not used at all. If the new method should become the popular one, the sale of face powders powder puffs and compacts—now the leaders—would sink to insignificance.

Various treatment items comprise the line which produces the shiny make-up. The shine on the face is produced by a thin film of a preparation which has a cream base and resembles a screen make-up. The new make-up also calls for darkened and shiny eyelids and brilliantly red lips.

The new trend will bear watching, but at present there are no positive indications as to how far the movement will extend.

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Dinitrophenol

Treatment of obesity with dinitrophenol is apparently waning. Manufacturers inform us that the demand for this chemical from drug manufacturing houses is decreasing. We also note articles appearing in the *Journal of the American Medical Association* which report mostly the attending dangers in the use of the product. Apparently the association is trying to halt the ordinary practitioner in the indiscriminate use of the product.

At the same time we understand at first hand that physicians who are in a position to use the product under the proper conditions are obtaining excellent results. These physicians are in a position to watch the patient's reaction and are well acquainted with the results which might be expected. It is certain that the product has a use in the therapy of obesity since it will accomplish desirable results where both diet and thyroid have failed.

Treatment of obesity is a problem of major importance to the

medical profession and it is a problem in the solution of which the drug manufacturers deserve a real place. But we do not believe that either the medical profession or the drug manufacturing industry will go far in successful treatment of obesity with dinitrophenol. For there are too many apparent dangers attending its use, and the ultimate sale of the product in the proper way is relatively small. It appears to us that the ideal treatment for obesity has still to be discovered.

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Prices and the Public

The lower price levels which the public demands are causing more worry to manufacturers of drugs and cosmetics than probably any other existing condition. And this is something to cause real concern. For the facts are that despite all the promises made by distributors to maintain prices and not push private brand merchandise, the public is and will continue to demand the private brands if higher prices are charged for the nationally advertised merchandise.

In the face of all the price reductions in clothing, food, and other necessities, how can manufacturers of drugs and cosmetics expect the public to pay higher prices for these items than they paid during 1929? It is true that some manufacturers have cut their prices to the ultimate consumer, but most of these cuts were forced by very successful private brand competition: witness Bayer's Aspirin and Listerine as just two examples.

We do not believe that it is possible for a retailer who was formerly charging cut prices for nationally advertised merchandise, to charge even the suggested minimums without getting a kick-back from the consumer and a demand for something just as good. The manufacturer can not hurdle this situation unless he is willing to lower his own prices to a point at which most of his profit disappears. But the low priced brands of the syndicate stores continue to increase and the prices are so much lower than those of the advertised goods that the public is buying them. And the manufacturers just add to their worries by raising the prices at retail and increasing public resentment against the advertised goods!

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Competition

The encroachment of drug and cosmetic manufacturers upon the markets of one another is constant occurrence which cause each manufacturer in turn to look upon the other manufacturer with distrust. Yet this situation is perfectly normal and natural. For there is no good reason why a manufacturer should not try to extend his line until it includes everything in the industry if he has a good product and sells it at a profit. The industry will expand only as good products are made available to the public at the lowest possible prices, and competition of this sort will bring such a condition about.

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New and Non-Official

This department has decided to go tabloid or rotogravure or something for this issue. This is in deference to the comfort of our staunch followers and constant readers who, bravely attempting to follow its vagaries, might, in view of the long-continued hot weather, be overcome by the heat. Far be it from us to put their loyalty to such a severe test and besides, the heat's got us, too.

Our roto section opens with a quick shot from the Parade of the Paper Hats, not, however, to be confused with the Brown Shirts, Starched Collars, or High Hats. At the moment this shot was taken a cloud or pillar of fire encircled the Paper Hatters as far as their necks, which is to be greatly lamented. What you see is quite intriguing, don't you think, and it would have been nice to see more.

However, we think they're very cute and, to quote from the release accompanying the picture, "strange as it may seem, most of the caps finally find their way to the heads of mature men who, one would think, would know better. (Hear, hear) It is not an unfrequent sight in some cities to see hundreds—even thousands—(wow!) of men, and, in some cases, women (this is fast breaking us all up) wearing these ad caps at sporting events, on the beach, and driving along the highways. No case has been recorded where the owner of a Rolls Royce was found wearing one (a neat

quip, that, if you like quips, although we've been sticking pretty steadily to fizzes) but the fact remains that four out of five users (the same number have pyrorhea) have continued their use after preliminary tests proved their value."

The McKesson and Robbins hat, which is being worn by that pleasant looking gentleman in the second row (put your hand up please) are given to dealers in certain territories for distribution to their customers.

Which doesn't leave us much space to tell you about Mrs. Helen Carr of 2727 Orthodox st., Bridesburg, Pa., whose picture recently appeared in the Philadelphia Evening "Bulletin" under the startling caption " 'Human Slate' Woman Writes

on Her Own Skin." NEW and NON-OFFICIAL readers, particularly those who read this department in the last issue, will have no trouble in identifying this as just another allergy. And our scout who has been on the trail of the allergens and who sent in this picture, is none other than Doctor George B. Laing.

CHAINS COOPERATE—A LIGGETT WINDOW

THE STABILIZATION

The opinion existing among those who are not too blinded by their enthusiasm is that the price maintenance experiment is tottering. Tottering because it is not sufficiently effective. Cheating is going on, and it is a question how long those who are honestly living up to the requirements of such a set-up will continue to stand for the cut-raters taking advantage of them.

For the honest efforts of manufacturers to keep their goods out of the cut-price places are not keeping the goods out of these places. Someone is selling them. Some manufacturers claim that it is the wholesaler. According to these manufacturers, wholesalers feel that these shops will get the goods from some other wholesaler if shipment is refused, so why should any wholesaler let his competitors get ahead of him.

Another manufacturer expresses the thought that are "too many cousins in the retail drug business." By this he means that retailers in New Jersey will ship some of his goods to a retailer in New York, or vice versa. There seems to be no way to stop this transfer of merchandise from a recognized outlet to an outlaw one.

This brings up the subject of the chains. Having been the real factor in finally forcing the manufacturers to adopt the price maintenance policy after the wholesalers and retailers had labored in vain for many years to bring about such a condition, the chains have been lavish in their gratitude to the manufacturers. They have shown their appreciation by giving large window space to the products of cooperating manufacturers and they have been very particular to maintain the prices on these goods at the suggested minimums. But having brought the condition about and thus given the wholesalers and independents that which they so ardently desired but could not obtain by themselves, how long are they going to stand by and see the wholesalers and retailers undermine the price structure which the wholesalers and retailers said they desired?

After all the chain stores can not let such a condition exist. Even though the chains have reached the point where they prefer to make a good profit on every item which they sell, they will soon be seriously undermined if they do not sell at prices competitive with other outlets.

Walk into Macy's if you happen to live in New York and you will see what we mean. Go to the dental aids

CHAINS COOPERATE—A PENNSYLVANIA DRUG WINDOW

EXPERIMENT TO DATE

counter and see Ipana displayed on sale for 34 cents when the suggested minimum is 39 cents. At the same counter see Squibb's Dental Cream on display or see Gillette Blades, packages of 10 for 37 cents. Or wander over to the drug counter and see the "price maintained" items behind the counter there. Then wander over to the perfume and cosmetic counters and see more such items. Or if you don't happen to live in New York try it out in the well-known cut-price establishments in your own city. Then realize that these goods are not coming from the manufacturers, and that the manufacturers would cut off the distributors who are supplying these stores if they could find out who is doing the supplying of the goods.

On top of the fact that the chains are likely to become dissatisfied with the movement due to the lack of cooperation on the part of other distributors, the fact is also clear that the independent retailers in places remote from large city influence are not at all satisfied with the present plan. This is because most of these retailers were formerly able to obtain practically the full 33 1-3 per cent. on every transaction. But now with the suggested minimum prices of the manufacturers placed at 21 per cent. above cost, enough of these retailers are dropping their prices to the suggested minimums to cause a complete lowering of the price structure in their territories. These retailers claim that they can't live on less than a 28 per cent. mark-up, so for them price maintenance has only served to lower their profits when it was supposed to increase them.

In addition to these two branches of the trade who are not getting what they want, the manufacturers are finding that the condition is far from pleasant for them. For enough of them who are honest to admit it state without qualifications that they "are taking a licking." In other words their volumes have dropped considerably due to the fact that they had to cut off very large distributors because these distributors would not adhere to the suggested price schedules. A large number of these distributors are getting enough of these price maintained products through other channels to make good the claim that they have them for sale for those who demand them. But most of them are hidden away and a very large number of the customers for those products are now using the private brand merchandise of the distributors.

These facts clearly indicate that unless something is done to strengthen the price maintenance set-up, the experiment must fail as these evils become more widespread. And the question immediately raises as to what will conditions be like if this cooperative movement to bring order out of chaos does fail.

The Cause of It All

But let us consider the steps by which a large number of the leading manufacturers in the industry were finally drawn into this experiment. First, during the "lush" days just prior to October, 1929, manufacturers both big and small expanded to the very limit. They built new plants, increased their production, and in practically all ways increased their overhead. With the crash and the curtailment in business they were not prepared to retrench. Therefore, in order to maintain the volume of sales which their overhead required, they let distributive outlets swing the club over them and generally gave the distributors of any size what these distributors demanded. They went to the large price-cut outlets and sold them direct, in some instances giving them additional discounts. In return for this most of these distributors displayed the goods but tried to switch every customer who asked for one of the items to one of their own private brands. Thus the manufacturers were supplying these distributors at a special price with merchandise which the distributors were using to undermine the business of the manufacturers who had thus favored them. These distributors knew what they were doing: the manufacturers, being desperate to maintain their volumes of sales, were in a weak position and the smart distributors who could give them large cash orders were merely demanding every concession they wanted.

Manufacturers Submit

But this didn't get the manufacturers anywhere as business continued to decline and incomes continued to dwindle. So the manufacturers once more let the distributors dictate to them how they should conduct their own business. They let the wholesalers sell them the Drug Institute of America, and they let the chains put the final touch on the picture by selling them a "real price maintenance experiment." Thus manufacturers have continued to change their business policies according to the dictates of those who are in active competition with them as manufacturers, namely the wholesalers, the chains, and the cut-price department stores. And as manufacturers have continued to follow this advice, their sales, in the main, have continued to dwindle. The chains have definitely demonstrated the great strength of their position today, and the wholesalers have clearly shown that their position is much stronger than it was during the boom days.

Which branch of the trade which will be the first to show serious defections in the ranks is not yet indicated, but it most likely will break out among the manufacturers or the chains since they are ones who are likely suffer to the greatest extent and since they are in a strong enough position to withstand the criticism of the other branches of the trade.

More Small Chains?

One manufacturer expresses the opinion that the manufacturing branch of the industry has worked itself into a position from which it will not fully recover for two decades. He visualizes that when the price maintenance experiment crashes, the banks will aid the smart merchandisers among the retailers and thus allow them to expand. Therefore, he looks for a large growth among the local drug chains. It is his opinion that chains of comparatively small size restricted to one city are the most efficient. Bankers, recognizing this fact will be quick to aid in the development of this type of drug distributors.

If and when this development takes place, the manufacturer will have a much larger number of substantial retail outlets to deal with, but he will also have to deal with firmer buyers who will all be very active in the sale of private brand merchandise.

Not Sound Policy

To those manufacturers who have thought the matter out clearly it must be apparent that a general policy of price maintenance is an economically unsound condition for manufacturers in the long run. As a merchandising policy on the part of a few manufacturers who may want to use this means as securing an advantage over manufacturers in dealer cooperation, the plan might be satisfactory, but adoption of a price maintenance plan should be determined by the individual manufacturer. From a manufacturer's viewpoint, the most efficient and lowest priced method of moving his goods to the ultimate consumer is most desirable. For only by such type of distribution can the consumer buy the greatest amount of the goods of the manufacturers. And when manufacturers aid in supporting the inefficient distributors by maintaining prices at an artificial level, they are merely helping to restrict the sales of their goods to the consumer. A manufacturer might consider that if he maintains his prices at these artificial levels the more efficient distributors will eventually expand to the point at which they will either absorb or crowd out the less efficient ones, but then the question of private looms much larger and the efficiency of the distributor is being used successfully to compete with the manufacturer. It might be true that the public would receive some benefit from greater distribution of the private brands, but this certainly is not in the interests of the manufacturers. How much better it would be for the manufacturers if the savings on the part of efficient distributors could be used to lower the prices of the goods of the manufacturers to the public as was the case a few years back. It must be clear to all by now that the price experiment can not last.

OBESITY

Always a major problem of the laity, its treatment as a disease has increased in favor. With the recent introduction of dinitrophenol as a remedy, a review of methods of treatment is moot.

Mr. Daniel Lambert seems to have been the world's champion fat man. He was born in Leicester, England, March 13, 1770, and at the age of 39, weighed 739 pounds. He measured 9 feet around the body and 3 feet around the leg. Illustration from Williams' "Obesity."

About a year ago, workers at the Stanford University School of Medicine first reported on the use of dinitrophenol in the treatment of obesity. This marked the first contribution in almost forty years to the therapeutics of this disorder, for it was in 1894 that thyroid gland substance was first recognized as being of value in such cases. Although dinitrophenol is a potent and dangerous drug and although the first rush to it has subsided under reports of serious and sometimes fatal illnesses resulting from its indiscriminate use, its value in the treatment of obesity seems to have been definitely established. In fact, workers in England are now studying the effects of another member of this same chemical family, dinitroorthocresol, which is reported to be about five times as potent and presumably, about five times as dangerous. This would seem, therefore, to be a propitious time to review obesity and the therapeutics of obesity in the light of this more recent contribution.

Not so long ago "Nobody loves a fat Man" became axiomatic. Even more recently the ladies decided that the same thing applied to them. A few unkind persons have gone so far as to suspect the insurance companies of propagating these doctrines, since these organizations have more than just a paternal interest in the longevity of their policyholders and since 20 per cent. or more of overweight shortens the standard expectation of life. Excess fat isn't becoming or convenient, and the fact that it isn't healthy has been recognized since the very earliest days of medicine, so the insurance companies were springing nothing new in their sincere efforts to add to the life expectancy of their policyholders.

Obesity is generally accepted as being a disorder of the metabolism which, in turn, is the rate at which food is built into tissue or used for heating the body, and, after these two processes are accomplished, is broken down and eliminated as waste. This building up and breaking down of tissue varies in rapidity. Generally speaking, when this rate is below normal and food and body tissues are burned up slowly, the excess is stored in the form of fat, and the body tends to become obese. Conversely, when the rate is too fast, the basel metabolism is excessive, and when it is excessive, the body is usually thin.

By reason of the nature of the disorder, the treatment of obesity is approached in three ways: (1) diet—which is an attempt to reduce the fuel so that there will be no excess for storage; (2) exercise—which is an attempt to burn up more food and tissue by purely mechanical means; (3) medication—which is an attempt to accomplish the same results with the use of various therapeutic agents.

There is some diversity of opinion in medical circles as to the importance of medication in the treatment of obesity. On one hand, there are those who hold that about 80 per cent. of such cases can be successfully treated by diet and exercise alone, with about 10 per cent. needing specific treatment for heart, lungs, liver, kidneys, and only the remaining 10 per cent. needing

medication. Another school of thought holds that obesity is due in most cases to some disturbance of the endocrine glands and that medication produces the most satisfactory results. In the opinion of the latter group, diet is of minor importance and only a small proportion of obesity is due to lack of exercise. Perhaps the most generally accepted belief is that the immediate cause of obesity is probably too much food and too little exercise, while the underlying basis is probably an endocrine disfunction which has disturbed the weight regulating mechanism of the body by causing a low metabolism, resulting in an excessive storage of fat.

Although they probably never analyzed the problem in just this way, people for many centuries have attempted to attack both these causes by visiting the natural springs and baths in various parts of the world. There they bathed in and drank of the various mineral waters in an effort to lose excess fat. The frequent bathing aided in the loss of weight by increasing metabolic activity to some extent and by encouraging abundant sweating which helped rid the system of some of the waste products of defective metabolism. The frequent mineral baths may have resulted in some slight stimulation of tissue oxidation and certainly depleted the supply of water in the tissues, both of which actions reduce weight. Weight reduction was further promoted by frequent consumption of the mineral waters. These were simply natural purgatives which depleted the system of water and hastened the passage of food through the alimentary tract before complete digestion and absorption had taken place. The modern bath preparations and purgatives which are offered as reducing aids are simply newer forms of these age-old reducing methods.

Endocrine Disturbances

Although endocrine disturbances resulting in low metabolism and excess weight are not in all cases due to a thyroid gland disfunction, (the pituitary, ovarian or adrenal secretion might be at fault) thyroid gland medication has been an accepted obesity treatment for almost forty years. Thyroid extract speeds up the metabolism to burn food and body tissue more rapidly, instead of storing it. As it is an extremely powerful heart stimulant and, in addition, effects the kidneys and central nervous system, its administration is always attended by danger and should always be closely controlled and observed. Palpitation, excessively fast heart action, headache, lassitude, trembling, fever, sweating and sleeplessness are some of the symptoms of excessive use of thyroid extract. As individuals vary greatly in the amount needed, and as too much will cause serious illness, while too little causes no decrease in weight, careful experimentation is necessary before the proper dosage is arrived at.

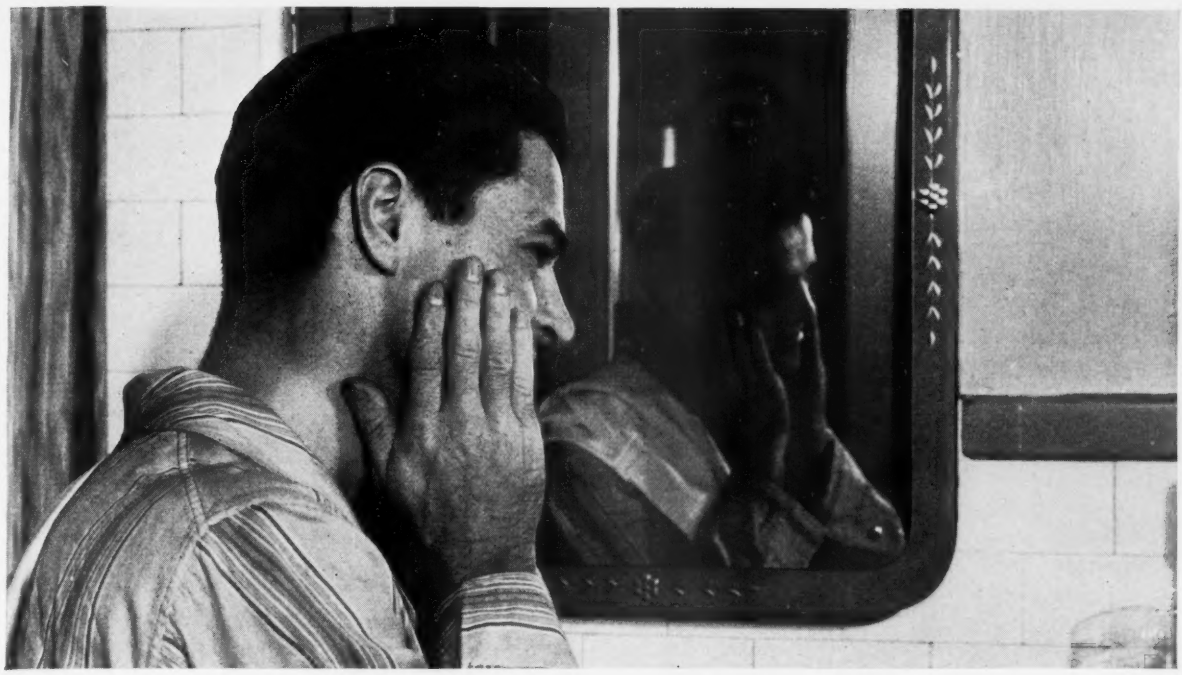
With the introduction of dinitrophenol in the field of obesity, there has been a concerted rush away from thyroid extract to this newer drug. But despite certain advantages of dinitrophenol, it can never entirely replace thyroid extract, for the latter has a number of actions not possessed by dinitrophenol. Furthermore, the administration of dinitrophenol is accomplished by such danger that its use is indicated only when diet has failed and thyroid is not needed or tolerated.

These dangers cannot be overemphasized. Alpha-dinitrophenol is closely related chemically to trinitrophenol, commonly called picric acid. French physicians became familiar with its deadly effects during the war when there were numerous fatal poisonings among munitions workers exposed to it. It is unpredictably toxic and susceptibility to it varies greatly. Only a hairsbreadth separates a dose strong enough to produce a fever from one strong enough to prove fatal. During the past year at least four fatal cases have been reported and at least one of them was as a result of a dosage generally considered as within the normal safety limits. There is no known antidote for dinitrophenol poisoning although it has been reported that the inhalation of pure oxygen and the use of cold applications on the skin reduce toxicity. It gives no warning except too marked sensations of warmth and sweating which may quickly pass into a serious and perhaps fatal fever.

Dinitrophenol

The effectiveness of treatment with dinitrophenol in obesity is due to the fact that it increases metabolism by direct stimulation of cellular metabolism. It has been shown to be effective regardless of the type of food consumed, and it acts independently of the nervous and glandular functions, which latter property marks its difference from and chief advantage over thyroid extract. In 113 test obesity cases at Stanford University, it proved successful in all but 12. Of these 12, three showed an inadequate loss in weight, while nine suffered from undesirable reactions. Of the nine, eight developed a skin rash. This skin rash has occurred in other cases following administration of dinitrophenol and has been shown to be allergic in nature. It has also been pointed out that a seven per cent. incidence of this type of hypersensitivity is much higher than that of other drugs whose use has been discontinued due to the danger attending their administration.

It must be pointed out that these test cases were conducted under carefully controlled conditions and constant observation, which are the only conditions, in the light of present knowledge, under which dinitrophenol should be administered. The difficulties of arriving at a safe dosage have been pointed out above. Doses generally considered safe may easily prove overdoses in the case of highly susceptible individuals and overdoses are toxic and frequently fatal. However, as the Stanford workers have pointed out, the fact that an overdose is toxic is not sufficient reason for not using dinitrophenol any more than many other potent drugs currently in use, and the results to date would seem to indicate that they have made an important contribution to the treatment of obesity.



BRUSHLESS SHAVES

By Francis Chilson

Some laboratory notes in which comment is made on a variety of materials and also upon a group of tested formulas.

Interest in the subject of brushless shaving cream continues to engross the attention of manufacturers, an interest which is well placed because of the increasing popularity of this product. It may be said with little fear of refutation that the *perfect* brushless shaving cream has not yet been placed on the market. Although there are many good ones, all are lacking in one or more essentials. What are these essentials? We offer the following, anticipating that many authorities on the subject will disagree as to relative importance—but probably not as to substance. From a practical point of view we believe the *ideal* brushless shaving cream will conform to the following specifications:—(We are obliged to use general terms and homely comparisons in describing properties because no one has yet developed a series of standard tests for their measurement.

Consistency. The ideal brushless shave will have sufficient body to hold the hairs of the beard erect so that they will offer resistance to the movement of the razor, thus insuring a clean cut instead of a drag against the blade. Yet its consistency will be soft enough so that the cream can easily be spread in such a fashion that it will surround the base of the hair instead of forming a crust around the upper portion of the hair shafts. In other words, such a cream will have the consistency and spreading qualities of strained leaf lard, a medium cold cream or soft, short fibre petrolatum. One could mention a number of well-known brushless creams which meet this requirement but for the reluctance of manufacturers to allow comparisons to be made with established products. It is hard to devise a simple method of measuring such a property. Our method is to lay a partly filled glass jar on its side after the cream has set. It should not have slid down toward the cover after it has been in that position overnight. Another method is to time the settling rate of a metal plummet of definite weight in a standard quantity of the cream.

Some creams approximate this degree of softness but are "crumby" in texture, that is, they tend to come out

of the jar in lumps which fall off the fingers too easily. The cream should have a smooth texture and it should spread easily, quickly and uniformly cover the beard.

Viscosity. Uniformity brings us to another property which, technically speaking, cannot be separated from a discussion of consistency, namely, viscosity. Perhaps a better word would have been "tackiness." Many creams have excellent consistency but they are not tacky enough. A certain degree of tackiness improves spreading qualities and what is more important, keeps the cream from immediately falling off the razor. With most creams, the user must wear a bib or must lean uncomfortably over the wash basin to keep the stuff from falling off the razor onto his clothing, a position, incidentally, which makes it somewhat difficult to view his countenance in the shaving mirror. Perhaps this may be a good thing as some bright individual may some day be able to sell "shaving aprons" especially to Pullman travelers. In passing it may be said that one advantage of soaps is that the shaver is not obliged to rinse the razor until he is finished because the lather will keep on heaping up on it. Not so with brushless creams. We don't need so much coherence in brushless creams but we need sufficient to keep the cream from dropping off the razor continually.

Solubility. A common fault of brushless shaves is that they are not sufficiently soluble in water. They do not rinse off the razor readily, a factor which is very important to users of safety razors, the teeth of which soon become clogged with cream and hair when the cream is not readily soluble. Many creams collect in the wash basin and some are so insoluble that they have been known to clog drain pipes. One method of determining solubility is to shave with the cream and observe how readily it will wash off the razor, especially from between the teeth of the guard, and also whether it vanishes down through the drain quickly. In making such a test one should use lukewarm and not hot water and one should see to it that the pressure of the water is not great. Hot water and high pressure will wash almost anything away. As a matter of fact we use cold water ourselves in making shaving tests on the assumption that if physical requirements are met and a comfortable shave is obtained with cold water and unfavorable conditions, then the product will certainly function well under favorable conditions.

It should not be forgotten that our vast rural population does not have running water at its disposal and must do its shaving with a basin. In such conditions solubility is vitally important because many creams will wash off the razor when held under a fast stream of water from a faucet, but will not wash off the razor at all when shook about in a basin of still water. Perhaps this explains why soap creams are still favored by the rural populace and brushless shaves by the urbanites. In the study of solubility we think that insufficient attention has been given to the *melting point* of the cream. A cream with a low melting point obviously will dissolve more readily in warm water than a cream of the opposite type.

The foregoing properties seem to us to be in need of more attention than they have been given heretofore. We are taking for granted unanimity of opinion respecting the general properties of brushless shave, namely, that it must, first of all, provide a smooth, easy shave free from smarting and irritation. To accomplish this it will be necessary first of all to instruct the user to employ a sharp razor blade and it will be necessary to provide him with a low surface tension cream of effective consistency.

But all testing should be conducted under unfavorable conditions. If the chemist has a light beard and a skin like leather he should hunt up subjects who have thin skins and wiry beards. New blades should not be used; it is best to use those which have seen a bit of service. And still water, not more than lukewarm, in a basin should be used in order to check solubility. If the product meets all requirements under such conditions it will cause no worry as to consumer acceptance.

We have read a number of unsupported theories which hold that soap creams are best for oily skins and brushless for dry skins. Such theories sound logical and are especially fruitful from an advertising standpoint, but they do not bear investigation. Our experience has demonstrated that brushless shaves are perhaps better if anything for oily skins than they are for dry skins. We should say for "oily beard" and "dry beard," rather because the skin enters into the shaving picture only in an incidental manner. The concensus of chemical opinion in regard to vanishing cream *per se* as a woman's cosmetic is that it is not good for a dry skin. Just why vanishing cream (which is what brushless shave really is) should in the case of the male of the species be best for dry skin and worst for oily has not been satisfactorily explained.

We have read theories of emulsification and saponification in regard to the oil which surrounds the hair in connection with soap shaving creams and also brushless creams. We accepted some of them for a time. But we are beginning to believe that neither saponification nor emulsification enters into the shaving question at all—that it's really a question of surface tension. The oil on the beard acts as a mechanical barrier to the cream,—keeps the cream away from the hair shaft and affords an opportunity for it to give before the razor blade. When that oil is washed away, the cream comes into immediate contact with the hair shaft and the water can exert a slight softening effect. Hence, when a man with oily skin (and hence oily hair) washes his face *before* shaving he will get a very much more comfortable shave than he would get otherwise. For this reason we think it a pity that manufacturers do not recommend rubbing in the cream slightly, and that applicators in the form of brushes with three-quarter inch bristles are not generally recommended.

As to functions of the materials in brushless shaves, we must have ingredients to give body to the cream,

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CLEANSING CREAM

Information on the subject is brought up to date and suggestions made for future investigation.

Much has been written about cleansing cream but the subject never seems to lose its freshness. Possibly this universal interest is due to a cherished hope that an already great market may be considerably expanded through inducing men to use cream as well as women. Although men are still cosmetic-shy, there is a possibility that, because of their willingness to use lotions after shaving, they may yet be persuaded to use at least cleansing lotions or creams in liquid form.

The mention of a liquid cleanser will arouse controversy among chemists, who usually insist that a skin cleanser *must* be a reasonably viscuous cream containing a high percentage of oil. But theories fall before facts and in the light of knowledge obtained from the study of detergents, it is possible that the cleansing cream of the immediate future may be a radically different product from its predecessors.

Such a change seems imminent through the introduction of detergents such as sodium lauryl sulfonate and other sulfonated high, fatty alcohols and sulfonated oils, all of which have detergent properties and some of which have already been used in cleansing creams. If it is insisted that only an oil can cleanse the skin properly, it seems reasonable to suggest that an oil with a known detergent value might be added to enhance the action of ordinary oil. The trade has utilized sulfonated oils to a great extent in cleansing the hair and it seems likely that we shall use them to a considerable extent in cleansing the skin. And not only shall we use sulfonated oil but we shall use some of the sulfonated fatty alcohols, many of which are soluble in oil or water. As yet an insufficient amount of work has been done in this connection to render an opinion as to the effect of such products on the skin. However, it is doubtful that they will have any deleterious effect especially in a vehicle which is left on the face but a few moments at the longest.

As sulfonated oils and fatty alcohols work best in conjunction with water the question at once arises as to what types of vehicle can best be employed. Emulsions,

both creams and liquids, seem apropos; solutions offer a possibility, but the hydrocarbon jellies are by no means ruled out because the user commonly flushes her face with skin toning lotion or with cold water after she has used the cream. It is also possible that gum jellies and lotions containing a high percentage of water in which appropriate detergents have been dissolved might prove to be effective cleansers.

For the purpose of arousing discussion and investigation we offer the following formulas. Where sulfonated oils are used the creams may prove to be too yellow for average taste. This yellowness can sometimes be offset through the addition of a minute quantity of a 1.1000 solution of aniline violet. Sulfonated oils are also whitened before use by adding alkali solutions, but for the present we would wish to reserve judgment on the propriety of this practice.

No. 1. Cold Cream Type

White beeswax	15.0%
White petrolatum	14. "
Ceresin	5. "
White mineral oil (65-75)	45. "
Sodium lauryl sulfonate	3. "
Water	16.7 "
Borax	.8 "
Perfume	.5 "

Procedure: The first four ingredients are melted together and brought to 70° C. The sodium lauryl sulfonate and borax are dissolved in water and brought to 75° C. This solution is slowly poured into the melted waxes with steady agitation, which is continued until the temperature drops to 45° C, at which point perfume is stirred in.

No. 2. Mineral Jelly Type

White petrolatum	35.5%
Ceresin	10. "
Spermaceti	6. "
Stearic acid	5. "
White mineral oil (65-75)	40. "
Sodium lauryl sulfonate	3. "
Perfume	.5 "

Procedure: The mineral oil is heated to 70° C. and the sodium lauryl sulfonate dissolved in it. The other ingredients, with the exception of the perfume, are added and stirred constantly until melted. Stirring is continued until the temperature drops to 45° C., at which point perfume is added.

No. 3. Emulsified Jelly Type

White petrolatum	20.0%
White beeswax	17. "
Water	5. "
Lanolin	5. "
Sulfonated castor oil	5. "
White mineral oil	47.5 "
Perfume	.5 "

Procedure: The petrolatum, beeswax, lanolin and mineral oil are melted together and brought to 70°C. The water and sulfonated oil are mixed and heated to 75° C. This is then stirred rapidly into the melted oil and stirring is continued until the temperature drops to 45° C. at which point perfume is added.

No. 4. Cleansing Lotion

Sodium lauryl sulfonate	8.0%
Glycerin	5. "
Alcohol	10. "
Water	76.5 "
Perfume	.5 "

Procedure: The sodium lauryl sulfonate is dissolved in water and the rest of the ingredients added. The liquid is then filtered. It will produce a brilliant, colorless liquid. It may be desirable to add a slight amount of color.

No. 5. Liquid Cream

Stearic acid	.5%
Triethanolamine stearate	6.5 "
Sodium lauryl sulfonate	5. "
White mineral oil (65-75)	32. "
Water	55.5 "
Perfume	.5 "

Procedure: Heat the water to 60° C. and dissolve in it the sodium lauryl sulfonate. Then add the stearic acid and triethanolamine stearate to the mineral oil and stir until melted, not allowing the temperature to rise above 70° C. Bring the water to about 75° C. and add it to the melted oils in small portions, stirring between each addition until the whole amount has been taken up. Finally add perfume and stir slowly until cool. This will produce a brilliant white lotion.

A few words about general directions may not be amiss in closing. Weighing should be exact. No one can hope to obtain uniform results with haphazard weighing. Temperature control is another important point, all too frequently ignored. The difference in temperature between water and melted fats should not be above five degrees and this standard should be maintained for all successive batches. The contrary rule is usually followed and no two batches are ever turned out in the same manner or at the same temperatures. Hence, there is always a difference in lustre, texture and sometimes even in consistency.

Industry's Books

Formula Compendium, 128 pages, published by the American Druggist, New York.

Working formulas for druggists including pharmaceutical preparations, cosmetics, hair and scalp preparations, dental preparations, and pharmaceutical charts and tables.

Modern Beauty Culture, by A. Smith and R. Rockwood, 290 pages, published by Prentice-Hall, Inc., New York, $3.00 net.

For all those engaged in or associated with beauty culture, particularly students of beauty culture to whom this book gives a working plan based upon fundamental theories and practical needs.

OUCH!

Most of us have corns to be stepped on, which is a fortunate circumstance for manufacturers of corn remedies.

According to the dictionary a corn is "a deep seated, horny, conical formation which usually occurs on the toes and which becomes extremely painful due to pressure of the pointed end on the corium." But to most of us it is simply a nuisance. Other sources define a corn as a "growth of the epidermis" or a "hardened tumor of the skin."

Although it is generally acknowledged that corns will result from continued pressure entailed in wearing very tight shoes or friction entailed in wearing very loose ones, no one has satisfactorily explained why such a formation should occur in such a peculiar manner. We know that the epidermis will become tough and hard in those parts of the body subject to severest wear and tear and that this toughness (in extreme cases resulting in an accumulation of dead skin called a callous) is designed by nature as a protective measure. But we don't know just why corns acquire their peculiar characteristic shape. Nor do we know why corns occur also on the feet of people who wear well fitting shoes, nor why some people seem to be afflicted by them as an hereditary influence. It appears that the character of perspiration might have some bearing but know one knows definitely.

There are two kinds of corns: soft corns and hard ones. The former occur usually between the toes, the latter on the outer surface. Both are substantially the same in structure, the former being easier to remove. From a medical point of view, however, corn therapy is still empirical. It is known that collodion will protect the affected area from friction, hence, it is widely used. It is known that certain chemicals will attack the epidermis and cause sufficient shrinkage to make removal easy. But aside from using antiseptics to prevent gangrenous infection, there has been little noteworthy progress in the development of "corn remedies."

The active agents frequently employed are: acetic acid glacial, lactic acid, trichloracetic acid, picric acid, potassium hydroxide, sodium hydroxide, soft soap, iodine, Burgundy pitch, salicylic acid, Indian hemp, camphor, Canada balsam, alum, phenol, ferrous iodide, solution of antimony chloride, zinc chloride, tannic acid, o-oxybenzoic acid, creosote, formaldehyde, silver nitrate, copper subacetate, fluid extract cannabis, cocaine, benzocaine, etc. In addition, the usual range of solvents are employed such as ether, acetone, alcohol, etc. Sometimes one or more of the above ingredients are added to collodion, while in formulas the lacquer is made by putting gum sandrac into the formula together with amyl acetate, camphor and acetone or ether. A number of typical formulas follow:

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BENZOCAINE U. S. P.

(Anesthesin)

By Edmund E. Smith*

In the tenth edition of the U. S. Pharmacopoeia was included for the first time, a drug deserving of very wide application in the alleviation of pain and irritation. This product is Benzocaine, discovered in 1890 by Ritsert, and introduced under the name of Anesthesin. The name benzocaine was approved by the American Medical Association to identify the American made product; its chemical name is ethyl para amino benzoate, and its formula $C_6H_4NH_2.COO(C_2H_5)$ 1:4 with a melting point of 90° C.

Benzocaine is a white crystalline powder, odorless and tasteless, but producing a distinct feeling of numbness when placed upon the tongue—very slightly soluble in cold water, soluble 1 part in 5 parts of alcohol, 2 parts of chloroform, and 4 parts of ether; in fixed oils, such as olive, castor, almond, it is soluble 1 in 30 to 40 parts; and in essential oils, it is soluble 1 in 10 parts. It is also soluble in animal fats and oils. In mineral oils and waxes, it is only slightly soluble. Solutions of benzocaine may be sterilized without decomposition.

Benzocaine is a local anesthetic possessing about half the anesthetic properties of cocaine, but unlike cocaine, is non-narcotic and non-habit-forming. It is also non-irritant and non-toxic. Due to its difficult solubility in water, it is absorbed slowly, thereby furnishing prolonged anesthesia. It is effective through intact mucous membrane, in wounds, ulcers, and mucous surfaces. Both animal and clinical tests have proven that even the most delicate tissues tolerate benzocaine without the slightest irritation. For this reason, it can be freely applied to wounds, burns, ulcerations, etc.

The field of application of benzocaine is almost limitless, and I will briefly outline a number of products and conditions where the presence of the pain-relieving properties of benzocaine will prove a blessing to the sufferer.

Benzocaine is administered internally in doses of 5 to 8 grains, for all forms of gastralgia, gastric ulcer, vomiting in pregnancy, nervous hyperesthesia of the stomach, pyloric ulcers, etc.

For arresting the pain of dysphagia, or laryngeal tuberculosis, it is applied by insufflation; relief lasting for 48 hours or more. As a dusting powder for ulcers, wounds, burns, etc. it will afford prompt and prolonged relief.

In conditions of the nasal tract, benzocaine is used beneficially in both the form of an ointment and spray. In an ointment base combining such products as menthol, thymol, camphor, ephedrine, etc. it affords relief in intranasal ailments and assists the mucous membrane to normalcy. In a spray combining the aforementioned products in a bland oil, it will give relief in catarrhal conditions, tonsilitis, sore throat, hay fever, etc.

One of the most curious applications of benzocaine that came to my attention is its incorporation in a product for reducing weight. The reason for its application in this type of preparation is its property of anesthetizing the mouth, thus materially lessening the desire to eat.

Suppositories and ointments for the treatment of hemorrhoids, which are always very painful, are improved by the incorporation of a small amount of benzocaine, and will prove a blessing to the sufferer. In eczema, burns, erysipelas, painful granulations, etc. benzocaine is invaluable in allaying the discomfort of these conditions.

Benzocaine is valuable in throat troches and cough lozenges where its action is very useful in allaying the irritation of the throat and palate, tonsilitis, laryngitis, etc., irritation due to smoking and excessive use of the voice. These troches are made up containing such products as menthol, oil anise, eucalyptol, benzoic acid, licorice, cubeb, etc.

Toothache and earache are painful conditions that can be relieved with benzocaine in a vegetable oil.

In painful eye affections, benzocaine may be applied in an ointment without danger, and with great benefit. Morgenroth conducted tests on the anesthetic action of benzocaine on the cornea of the rabbit. Three minutes treatment with benzocaine alone rapidly produced anesthesia lasting 32 minutes.

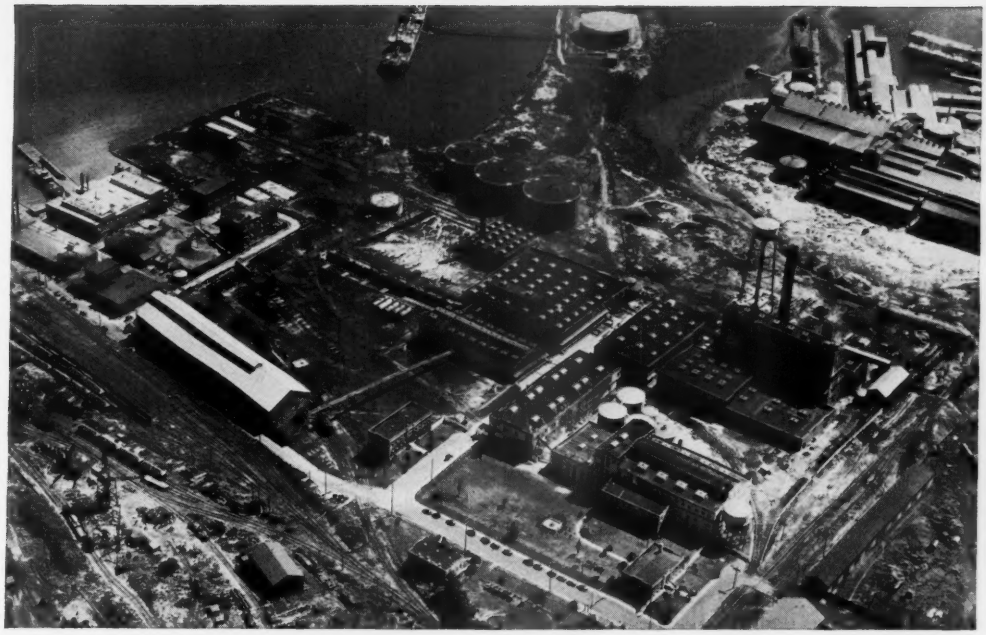
As a dusting powder, either alone or in combination with talcum, etc., it will afford quick relief when applied to wounds and chafed skin. It is a boon to babies who are troubled with the latter condition. An oil solution can also be used. Such a solution is also helpful when rubbed on babies gums to allay the irritation of teething.

Vaginal suppositories to render discharges innocuous and non-irritating, and to allay inflammation will be improved with benzocaine. Camphor ice and similar preparation for treating cold and fever sores, corn remedies, catarrh creams, etc. will be improved with benzocaine.

In the field of dentistry, benzocaine may be applied locally in any quantity, as it is entirely non-toxic and

(*Continued on page 183*)

*Seydel Chemical Co., Jersey City, N. J.



ALCOHOL PLANT OF U. S. INDUSTRIAL ALCOHOL CO.

ALCOHOL

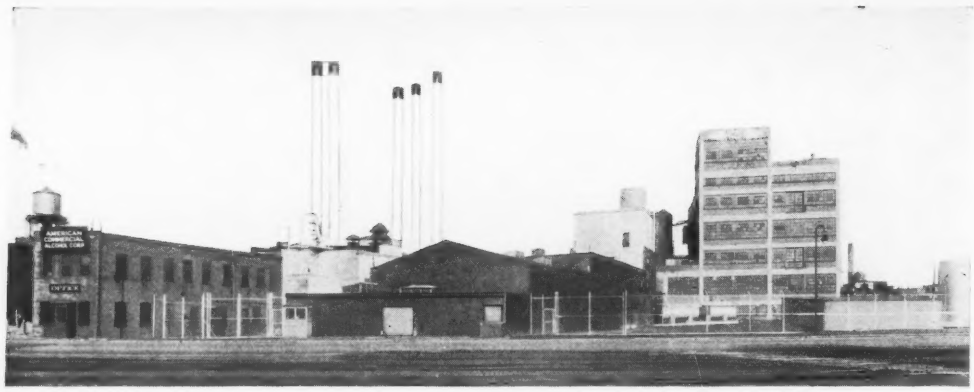
The word "alcohol" has a curious history. It belongs to a class of words, among which are "alkali" and "Alchemy," that have come to us from the ancient Arabic philosophers. The original application of the word was far different from the present meaning. The Arabic form, which may be transliterated as "al kohl," designated a finely-powdered black substance, possibly stibnite (native antimony sulphide), or galena (native lead sulphide), used for staining the eyebrows and eyelashes.

From the original meaning, the term was extended to any finely-divided material. Even as late as the early part of the nineteenth century, Sir Humphrey Davy, an English scientist (1778-1829), spoke of the "alcohol of sulphur," meaning the finely-divided form, "precipitated sulphur." The old term in pharmacy, "alcoholized iron," is still used to signify a finely-divided iron. From signifying fine division it came by a not unnatural transfer to mean a vapor or spirit.

Ethyl alcohol, scientifically named ethyl hydroxide or ethanol and commonly called grain or molasses alcohol, is our most important alcohol. Other names referring to ethyl alcohol are Aqua Vitae, Aqua Ardens, Aqua Vini, Spirits of Wine, and Cologne Spirits. It is occasionally found in nature but it is easily formed by the alteration of various vegetable substances. It has been known from the most remote times. The first recorded scientific discovery of isolated alcohol was that of an Arabian chemist, Albucaisis, who practiced distillation in the twelfth century, although distillation was first practiced shortly after the beginning of the Christian Era in Alexandria, but no definite record occurs telling of the isolation of alcohol itself, at that time. Albertus Magnus, about 1250 A.D., was one of the first authors to intelligently describe the concentration of alcohol by distillation.

Alcohol was unknowingly prepared centuries ago as one of the products of fermentation of the sugars in the grape. According to the Bible, Noah knew it. Grapes were crushed, often being trodden under foot, and the juice which resulted was collected in vessels and allowed to ferment. The plants which ferment the acid juice are the yeasts, several varieties of the Saccharomyces ellipsoideus, a wild species occurring naturally on the skin of the grape. Before the time of Pasteur (1822-1895), fermentation was believed to be spontaneous, but he showed that it was brought about by the naturally occurring yeast plants.

At the present time alcohol, now called "industrial" alcohol because of its wide use in the industries, is obtained from the cheapest raw material at hand. About 90 per cent. of the alcohol used in the industries is manufactured from molasses, a by-product of the sugar refinery. A great deal of the molasses comes from Cuba



PLANT OF AMERICAN COMMERCIAL ALCOHOL CO.

to the United States on large tankers. These tankers are used to transport nothing but molasses, by the big alcohol manufacturers, so as to guard against the possibility of contaminating this raw material with any other substances. The tankers have a capacity of about 2,000,000 gallons. A ship is unloaded by means of powerful pumps which pump the molasses into large storage tanks through pipe lines.

The production of alcohol, in general, by fermentation involves three steps: (1) changing the raw material to fermentable sugars; (2) fermentation, and (3) distillation. The first step is required when starch or starch containing materials are used, but when blackstrap molasses is the raw material to be used, sugar is the main constituent so that the first step is unnecessary, thus simplifying the operation.

The propagation and culture of yeast is the most important phase of the fermentation step because maximum yield in the conversion of sugar to alcohol requires a strain of yeast best adapted to the raw material to be fermented. An outstanding characteristic of the action of yeast is that this organism tends to overgrow all other organisms so long as sugar is present.

A considerable gallonage of alcohol today is also manufactured from grain. Indian corn in admixture with about 10 per cent. malt is fermented and on distillation true grain alcohol is obtained. In order to produce alcohol for the industries as cheaply as possible, other raw materials have been tried, many on a practical scale. Among the materials tried were cull potatoes, cull fruits, cull sweet potatoes, cannery wastes, cassava roots, and even garbage. Because of economical problems, none of the materials mentioned are used commercially, but other waste materials, such as saw-dust and wood refuse from different sources are used, and alcohol (ethyl alcohol) from wood is now being made in plants which distill about 3000 gallons daily.

During the year 1930 ethyl alcohol was produced synthetically from ethylene on a commercial scale. Ethylene can be obtained from many substances rich in carbon as coal and petroleum oils. In this process, the ethylene is mixed with concentrated sulphuric acid and at a temperature of 160° C. ethyl sulphuric acid is formed; this when boiled with water yields ethyl alcohol. The amount of alcohol produced during 1930 from ethylene was 50,000 proof gallons.

The third and final step in the manufacture of commercial or industrial alcohol is distillation. The product of the fermentation of the sugar containing materials, which is called by distillers, the mash or wort, contains alcohol in strength from 5 per cent. to 10 per cent., usually from about 5 per cent. to 7 per cent. To obtain the alcohol, distillation is resorted to. The fermented mash or liquid filtered from the mash is heated in a still and a crude alcohol 50 per cent. to 75 per cent. in strength is obtained. The crude alcohol is then distilled from a refining still and by this second step, one of rectification, an alcohol of about 95 per cent. by

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PLANT OF EMPIRE DISTILLING CORP.

NEW MEDICINES ABROAD

Iduna Drops, Extra Strong, "Old preventative for painful maladies," (rheumatism, etc.) said to result from the distillation of various drugs, according to Griebel and Weiss is a yellow, acid liquid, weakly aromatic (cinnamon), containing traces of ethereal oils, very little alcohol, yellow-red dye, and small amounts of citric and formic acids. Same manufacturer.

Iduna-Universal-Bath-Product consists of linseed meal. Same manufacturer.

Acarusan 01. Foeniculi, Balsam. Sulphuris, Sulfur. Depur., chloroform, 01. Sesami, Carbon. Sulfur. Package of 100 g. Tewega G.m.b.H., Wien III.

Imadyl-Bath tablets. These are almost white tablets, each containing 0.05 g. histamine "Roche." They serve for the electrophoretic treatment of rheumatic ailments (myalgia, neuralgia, arthralgia) and the accompanying circulatory effects, as well as for improving peripheral circulation in traumatic and tropic changes (Hematome, Ulcera, etc.). They are also useful in the treatment of furunculosis, Raynaud's and Burger's disease, pneumonia, and pleuritis. To produce a strong effect, one tablet is dissolved in 1 liter of lukewarm water; for lesser cases, one-half tablet is sufficient. A non-conducting vessel is the container and a carbon electrode is the anode. The cathode is placed in the upper half of the water layer and adjacent to the skin. Current strength: 5-10 milliamperes for 10 minutes. The bath can be used 5-6 times and lasts for 3 days. By combination with potassium iodide or salicylate baths the current may be reversed. F. Hoffmann-La Roche & Co. A. G., Chem. Fabrik, Berlin-Charlottenburg 9.

Imadyl-Salve is a soft, transparent salve containing 2% histamine as its active ingredient, recommended for massage and electrophoretic treatment. Indications for its use are the same as for the bath tablets. The affected part, free from inflammation is rubbed with the salve. After 3 to 5 minutes of massage the skin is reddened and there is a feeling of warmth and relief from pain. For electro-phoretic treatment, the affected part is thinly smeared with the salve and a small plate electrode set in place as the anode. The galvanic current used has a strength of 4- 6 milliamperes. When the anode feels warm and the cathode causes a pricking sensation, the current is not too strong. This procedure (5-10 minutes) is especially indicated where baths are inconvenient or the part is too painful to be moved. Same manufacturer.

Imedia Black, a hair dye, consists of 2 liquids: Flacon A contains a brown-black liquid which is a solution of p-toluylenediamine containing small quantities of p-phenylene-diamine. Flacon B contains hydrogen peroxide solution. Inclosed directions advise testing the preparation on a small patch of skin to reveal extreme sensitivity to the dye. L'Oreal, Paris.

Immerfron "a new stimulant made from fresh cola nut, mate and lecithin" should contain the important colatin, since it is prepared from fresh cola nut. According to Griebel and Weiss the tablets contain cola, cacao, small quantities of lecithin and traces of mate, but no colatin.

Immetal is the diiodoerucasic isobutyl ester, a light yellow, water-insoluble, germ-free, oily liquid containing 35-36% of iodine. It must be protected from the action of light, and is prepared by the esterification of diiodoerucasic acid with isobutyl alcohol. Immetal may be used in the treatment of arthritis deformans, as X-ray contrast substance for hystero-salpinography and myelography and as an ingredient in healing salves. Application and dose vary with the case. "Bayer-Meister-Lucius," I.G., Leverkusen a. Rh.

Ischoreumeu (formerly Ischiarheumol), for treating ischias and rheumatism, is a compound of pyridine derivatives (iodoquinoline) containing traces of acetylsalicylic acid along with colatin and theobromine. The harmful effect of salicylic acid is eliminated because of the small quantities present, while its medicinal effectiveness is greatly increased. Prof. Dr. Pfeiler, Jena.

Nervinum tonicum B, for use in the treatment of illnesses of the nervous system and in cases of exhaustion, is a new combination of organic and inorganic medical substances. It contains a solution of calcium glycerophosphate as well as the bromides of sodium and potassium; active organic components include dialysates of Valeriana, China and Passiflora incarnata, an organic iron compound and colloidal egg lecithin. The last is prepared by a biological process without the use of strong chemical reagents and is not "biologically dead." The dose for adults is 1-2 tablespoons full with a swallow of water; for children, 1-2 teaspoons. Hammer-Apotheke, Apotheker Karl Borgmann, Pforzheim.

Nippomint-Fluid, for headache, asthma, hay fever, etc. is an alcohol-free distillate of peppermint oil, juniper berry oil, eucalyptus oil, lavender oil, wintergreen oil, star anise oil, Roman camomile oil, petitgrain oil, and clove oil. For external and internal use. Robert Geller, Karlsruhe i. B.

Opuntien-Sirup contains the juice of Opuntia Raffinesquiana vulgaris, Xanthostemma and other Opuntia types, made into a syrup with sugar. It is used for coughs, whooping cough, asthmatic affections, etc. Apotheker Albert Holzle senior, Kircheim u. Teck.

Ovo-Transannon—This preparation is now being made without the addition of Folia Digitalis and may be administered without a doctor's prescription. Gehe & Co. A.G., Dresden-N 6.

HEPTYLLYS B

is rapidly being recognized as one of the outstanding aromatic chemicals now being offered to the perfume and soap manufacturers. The reasons for this recognition are that Heptyllys B has a definite, flowery note—a lasting odor—blends readily with other aromatics in compounds — has a greater odor volume than other aromatic chemicals in the same price and odor class—and will not discolor.

Heptyllys B is our trade name for a purified Alpha-Amyl-Cinnamic-Aldehyde.

Upon request we will be glad to submit samples of Heptyllys B.

The Naugatuck Chemical Company

Aromatics Division

1794 BROADWAY **NEW YORK, N. Y.**

Panvalon consists of calcium valeriate, calcium bromide, Tinct. Chinae simpl. and Baldrian-Fluidextract. For use in vasoneurotic disturbances, particularly during the menopause. Dr. A. Brettschneiders Apotheke, Berlin N 24.

Pectoform-Asthma Drops no longer contain Tinct. Opili benz. This has been replaced by Tinct. camph. benz. Apotheke zur Hygea Artur Unger, Breslau 2.

Pentacephin-Tablets. In this preparation, Eukodal formerly used is now replaced by 0.01 g. Cod. phosphoric. Same manufacturer.

Caseal Calcico-Ampoules. Each contains 0.175 g. casein calcium colloidal to 5 cc. distilled water. Three to a package. Ampoules for children are packed six to a package, each containing 0.07 g. casein calcium colloidal to 2 cc. distilled water. Opothera-peutisches Institut., Pisa.

Moro-Brocken, non-poisonous mouse and rat exterminator, consists of fat, flour, aromatics and ground squill. Chem. Fabrik Moro, Inh. Apoth. Bruno Neumann Nachf., Berlin.

Mucotrat-Kernels are advertised as "a stomach extract preparation containing an active enzyme complex. The kernels consist of the active material covered with a pleasant-tasting protective coating. One hundred grams of Mucotrat grains correspond to 1 kg. of fresh stomach mucosa. The preparation is standardized according to its proteolytic power. It is recommended for the treatment of achylia gastrica, chloranemia, dyspepsia, pernicious and secondary anemia, gastrogenous diarrhea. Dose: after meals ½ teaspoons with water. In most cases it is advantageous to take 20-30 drops of diluted hydrochloric acid in some water at the time of the most important meal. Nordmark-Werke G.m.b.H., Hamburg 21.

Antisclerosin-Tablets. Packages of 25 tablets, each containing Natr. chlorat. 0.40, Natr. sulfur. 0.04, Natr. carbon., Magnes. phosphor., Natr. phosphor. Also half-tablets. Chem. pharm. Fabrik W. Natterer, Munich.

Salteen Tablets. *Tablets contain 0.16 g. Extr. Fol.* Salviae, Natr. bicarbon., in packages of 20 tablets. Erzherzog Karl-Apotheke, Wien II.

Peptalmine-Dragees. Meat peptone 0.15 g., fish peptone 0.10 g., dried milk powder, dried egg powder; in packages of 50. Labor. des Produits Scientia Dr. E. Perraudin, Paris.

Radiophan Pills *contain 4.73 (10)$^{-5}$ mg. radium* chloride and 0.10 g. sodium atophan. Packages of 35 pills. Ampoules contain (10)$^{-3}$ radium element and *0.50 g. sodium atophan. Packages of 3 ampoules. Allg.* Radium A.G., Berlin.

Osshaemin Tablets. These "blood nourishing and strengthening tablets" weigh about 0.8 g. and are said to contain: "Sacchar. Alb., Sacchar. lact., Album. lact., Tartar. dep., Calc. lact., Calc. phosph., Calc. hypophosph., Magnes. usta., Natr. sulf. sicc., Ferr. oxydat. sacchar., Acid. silic., Calc. fluorat., Ferr. pulv., Mangan. carbon., Sulf. depur., Iodine, Album., Natr. chlorat., Cacao, Aromatica." Dr. med. Hans Fischer G.m.b.H., Berlin.

Pabex Tea, for menstrual disturbances, consists of rosemary leaves.

Pakrevital, for treating slight and ordinarily serious diabetes, contains "Natr. phos., Calc. glycerinophosph., Calc. lact., Natr. sulf. Pankreon, Magnes, phosph. and, in homeopathic proportions, Szygium jamb., Uranium nitr., Phaseolum, Taraxacum, Natr. choleinicum." Apotheker Franz Konizek, Pharm. Praparate, Oberhausen i. Rhld.

Parabilis. This preparation is apparently nothing but a dilute, slightly alcoholic solution of aloes.

Pastin-Stomach Tea, for flatulence, stomach catarrh, etc., consists of Pastinac. vulg. bulg. and Spec. aromaticae. Lowen-Apotheke, Annaberg i. Erzgeb.

Pigmol, hair-restorer, is a 1% solution of silver nitrate in very dilute ammonia. Eudox, Leipzig.

Neo-Kruschensalz is essentially a mixture of dried sodium sulfate (about 75%), dried magnesium sulfate (about 18%) and sodium chloride. Kruschensalz G.m.b.H., Berlin.

NeoVoss, for treating rheumatism, gout, ischias, etc., according to the label contains Bet. alb., Flor. lam., Caps. burs. past., Flor. Gelsam., Herb. urtic., Fol. trif. fibr., glycerine, alcohol and distilled water. Griebel and Weiss found only oil of wintergreen. Chem. Fabrik Puttendorfer & Moreau, A.G., Berlin.

Nerven. Nutrient Salts is a grey-brown, somewhat moist salt mixture containing white lumps of potassium phosphate. The rest of the mixture consists chiefly of milk sugar, an organic iron compound, calcium lactate, a magnesium compound, (apparently the oxide), and chlorides and sulfates of the alkali metals. A small amount of glycerophosphate may also be present. Apotheker A. Kerndl.

Nerven and Muttertee, for overstimulation and heart ailments, consists of Herba parietariae conc. Reichel.

Obturol, oxygen-containing aluminum preparation, is advertised as a valuable disinfectant for women. It consists of a mixture of sodium carbonate, potassium bitartrate, aluminum sulfate or alum and a small quantity of free tartaric acid.

Okanimal-Tablets for animals are tablets weighing 20g. each advertised as "pluriglandular biologically tested medicine in tablet form." They are sold as four different types: salt tablets for cows, salt tablets for bulls, sugar tablets for mares and sugar tablets for stallions. The tablets contain ovarian or testes substance, hypophysis frontal lobe and brain substance, Extract. Yohimbe, Extract. Colae and Extract. Gentianae; in addition they contain sugar or sodium chloride according to use. The preparation is used to treat anaphrodisia, sterility in cows and mares, loss of appetite, etc. Hormo-Pharma G.m.b.H., Fabrik chem. -pharm. Praparate, Berlin S 14.

Okatona, for treating ejaculatio praecox and pollution, is a combined medical treatment consisting of yellow brown tablets and grey suppositories with a stanolium

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Our Orange Blossom 34 reproduces that beautiful odor that makes the orange blossom type such a popular perfume.

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coating. Constituents are: Epiphyse, Lupulin, camphor monobromide, belladonna, and phenylmalonylurea. Use: insert one suppository and take 2-3 tablets before the midday and evening meals. Same manufacturer.

Omnasulf is a clear colorless liquid consisting of a highly dispersed, colloidal sulfur preparation in water. One 2cc. ampoule contains 1 mg. pure sulfur. The preparation is used for sulfur therapy, without the fever reaction, especially in local inflammations, acute and chronic septic processes, furunculosis, eczema and dermatosis. Dr. R. & Dr. O. Weil, Chem.-pharm. Fabrik, Frankfurt a/M.

Orient Henna Shampoo consists of two separate powders, the first being a mixture of soap powder and potassium carbonate, the second containing milled leaves (henna) and organic dyes including paraphenylene diamine. Albert Gottheiner G.m.b.H., Berlin.

Osmosate. These preparations are concentrated plant juices prepared by electro-osmosis without the use of heat. They are completely stable, always uniform in action and are intended to replace decoctions and infusions, which they surpass in regard to exhaustion of the drug.

The preparations are supplied in 20g. flasks; the following varieties are now available: Betula-Osmosat for uric acid diathesis; Chamomilla-Osmosat for spasms and neuroses; Condurango-Osmosat in place of Decoctum Condurango; Faex-Osmosat for treating boils; Millefolium-Osmosat for gall and liver ailments; Petroselinum-Osmosat for strong diuresis; Secale-Osmosat to be used in place of the usual secale preparations; Thymo-Serpyll-Osmosat against catarrh and whooping cough; Taracacum-Osmosat for blood purification; Viscum-Osmosat for hypertony and arteriosclerosis. Dr. Scheermessers Lowen-Apotheke, Dessau.

Juvenal, for general functional illnesses of the organs, neurasthenia, hysteria, hypochondria, etc., are chocolate colored tablets consisting of "Natr. nucl. 0.01, lecithin, cerebr. cacaon. Dose: 1 to 3 daily. Derupharma G.m.b.H., Hamburg 21.

Ka Blood and Nerve Food contains "an abundance of precious ingredients to enrich the organism, especially organically bound lime, silicic acid, natural iron, iodine, manganese, phosphorus, potassium magnesium and sulfur compounds, as well as other salts of the blood serum, vitamin, lipoids, lecithin and carbohydrates rich in bases." According to Griebel and Weiss the light brown mass consists chiefly of milled poppy, oatmeal, milk, sugar, calcium carbonate and a light yellow albuminous substance (possibly serum albumin). Fahrmann, Berlin-Schoneberg.

Gebr. Karge's Schalkur "Lizard," for cosmetic care of the feet, is a mixture of salicylic acid and paraffin salve.

Kartoffelin; potatoes for diabetics, are raw potatoes ground with their skins. Cahnfeld & Co., W. Elberfeld.

Kiepsche Medicine with strong diuretic effect, probably consists of a gum-thickened 5% solution of potassium nitrate with an addition of Spiritus Aetheris nitrosi. Naturheilkundigen Kiep, Ulm.

Almonin-Tee consists of stabilized Radix Valerianae, Herba Millefolii impregnated with Extr. gland. Lupuli, Hb. Origani, Herba Thymi, Cortex Frangulae, Fruct. Foeniculi, Pericarp. Aurantii. In 32 g. packages. Dr. Solf and Mr. Kronstein, Wien XIX.

Peremin-Salve, Glycerine, Tragacanth, aqu. dist. Camphora, alcohol, ½% histamine. 15g. package. Sanabo-Chino in G.m.b.H., Wien I.

Demalganil-Inj. 0.40 g. dimethylaminophenyldimethylpyrazolone, 0.06 g. diallylmalonylcarbamide, 0.60 g. carbaminic acid ethyl ester. Packages of 5 ampoules, each containing 2.20 cc. Same manufact.

Kleinol Henna Shampoo, "a neutral glycerine soap containing the coloring matter of Henna" according to Griebel and Weiss is a perfumed soap solution containing auxilary chemical compounds as dyes as well as vegetable products. The newer product does not concontain paraphenylenediamine. Kleinol Fabrik Friedrich Klein, Berlin.

Kolaferrin "for strengthening nerves and for rejuvenation" is said to contain Extr. Colae, Fol. Cocae, Ferr. Glycerophosph., Faex, Hypophys. extract, lecithin and hormones. The product for diabetics also contains yeast. Chem.-pharm. Praparate Dr. G. v. Walck. G.m.b.H., Berlin.

Dr. Kuhlmann's Hair Color Restorative consists of a 1.75% solution of silver nitrate in slightly ammonical aqueous alcohol.

Sandrine Tablets. Packages of 20 tablets, each tablet containing 0.025 g. ephedrine hydrochloride. Soc. Parisienne d'Expansion Chimique Specia, Paris.

Novamidon Tablets. Each contains 0.30 g. phenyldimethyldimethylaminopyrazolone. Packages of 12 tablets.

Lacpinol Tablets are "fluorescent, effervescing additions to the bath with a high content of naturally pure conifer oils." They are used to treat gout and to strengthen nerves. One tablet is dissolved in the bath under the back of the bather. Wolo G.m.b.H., Freudenstadt i. Schwarzwald.

Levurinetten, for skin diseases, digestive disturbances, vitamin deficiency, are light yellow tablets consisting of Levurinose (medicinal dried yeast preparation). Dose: normally 20 tablets a day, 5-10 before or after each meal. Chem. Fabrik J. Blaes & Co. A.G., Lindau i. B.

Marko, "the improved oxygen treatment," is magnesium peroxide. W. Markowski, Health Institute, Berlin-Schonholz.

Marko's Garlic Juice, "prophylactic and strengthening agent for sick and well" is an aqueous extract of garlic. Same manufacturer.

Marko's Cell Strengthening Salt, a dietetic nerve preparation, consists of a mixture of milk sugar, calcium phosphate, magnesia, ferric saccharate, an organic preparation (apparently liver powder) and a little

(Continued on page 185)

ODOR CO-ORDINATING

IN the success story of almost every toilet preparation odor plays a featured role. For at first glance, the average consumer can't analyze the product beyond its appearance and its smell. And regardless of the excellence of your cream, powder, or lipstick, unless the fragrance gratifies there is no sale.

With fragrance of such major importance it is good judgment to refer your perfuming problems to an organization best qualified to solve them.

It's more than 61 years now since Fritzsche Brothers gathered together a group of the most skilled chemists and perfumers to create individual odors for every possible variety of toilet preparation. In that time our personnel has naturally changed, but always has it been recruited from among the most talented in the field. And each year has brought to the organization greater knowledge of the odor value of the various available aromatic raw materials.

Many of the best known toilet preparations owe their enormous popularity to the Fritzsche perfumes. And the list is increasing every season. Possibly your product too would gain sales with a different perfume, custom-designed by Fritzsche.

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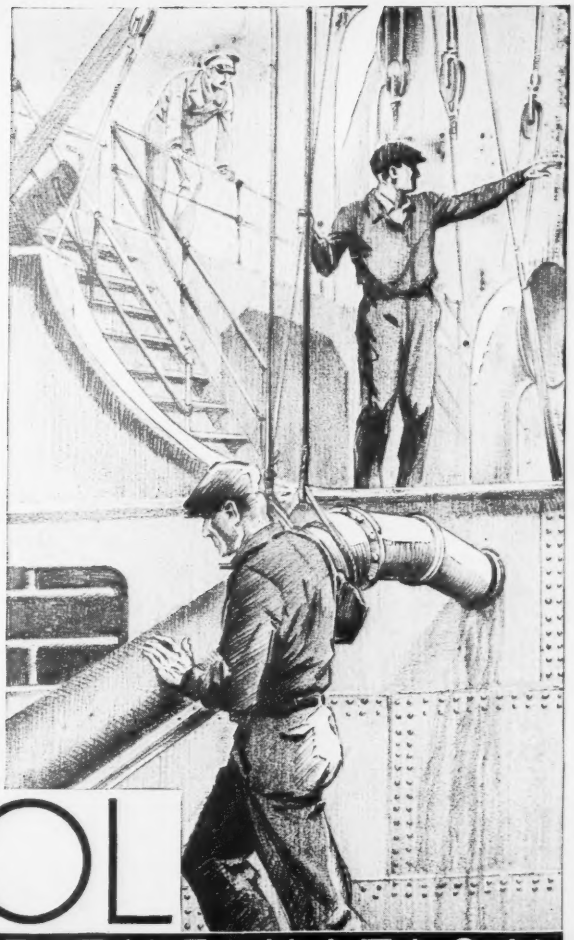

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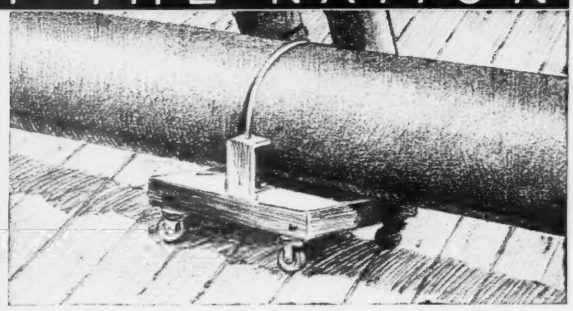
(Neutral Molasses Spirits)

SPECIALLY DENATURED ALCOHOL
(All Formulas)

COMPLETELY DENATURED ALCOHOL
(All Formulas)

SHELLACOL
(A Proprietary Solvent)



The plants of the Rossville Commercial Alcohol Corporation and its sister companies have storage capacity for twenty million gallons of molasses; and production capacity for thirty-four million proof-gallons of molasses alcohol annually. The grain alcohol capacity of Commercial Solvents' plants is sixty-five million proof-gallons annually.

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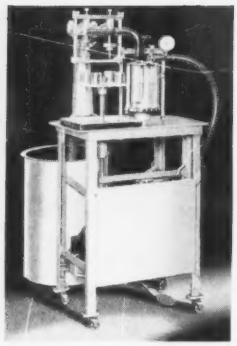
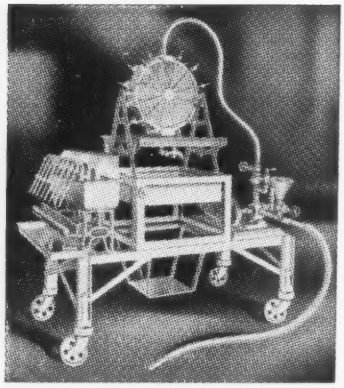


U. S. Hand Vacuum Filler

U. S. Siphon Filler

EXPERIENCE VS EXPERIMENTATION IN EQUIPMENT for BOTTLING



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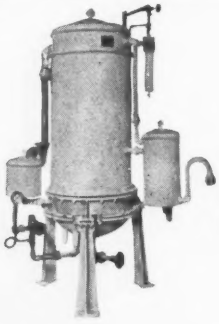
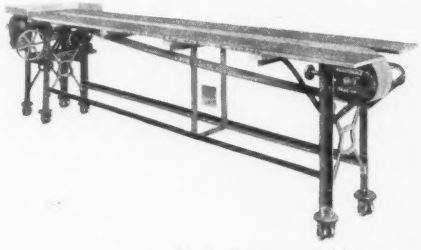


U. S. Polar Water Still Industrial Type



U. S. Conveyor Table 10 foot section

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PACKAGES IN UNIFORM

The Use and Abuse of the Family Package

By EGMONT ARENS*

This is a very good example of a family line with a large number of individual members, all of which are quickly distinguishable. Note how the name of the product stands out on the label, making for quick reading.

Down in Washington they have put up a statue to the Unknown Soldier as a tribute to the thousands of men in uniform who died on the field of battle, but whose identification tags had been lost. No matter how the Unknown Soldier of the great war may appeal to your sentiment, the unknown soldiers of the "battle of the brands" appeal neither to sentiment nor reason. What I am trying to say here is that when you put a uniform on your line of drugs or cosmetics, be careful that you do not destroy the identity of each product.

The idea of developing a family of packages with strong similarity of design and color for all the products of a single firm has met with a great deal of enthusiastic reception by executives during the last couple of years. There is, perhaps, not a large distributor of drugs or cosmetics who has not considered developing a family package for one or all of his lines.

This is without doubt a very healthy and important development of modern packaging. Consider, for instance, the pioneer job done by R. H. Macy & Company in styling not only their entire cosmetic and drug line, but their grocery and other products as well, in a single pattern and color scheme. Consider the beautiful job done by Paul Ressinger for Montgomery Ward, and the new family designed for Parke Davis by George Gift. Standard Oil even goes so far as to use one basic design for five distinct brand names and identities.

The day will very soon be here when each well-known line of merchandise will be wearing its own distinctive uniform. That is as it should be, but it is important to remember that unless the identity of each individual product is preserved the family uniform will be a boomerang—a hindrance instead of an asset to sales. In other words, the problem is only half solved when you have developed a family resemblance of all your

(*Continued on page 161*)

*Director of the Industrial Styling Division, Calkins & Holden.

Parke Davis has done a handsome job in styling its new line. Note that the name Parke Davis stands out more clearly than the name of the individual product.

SUGGESTIONS for NEW PACKAGES

By JOSEPHINE VON MIKLOS, Ph. D.

COLOR SCHEMES:

I. CANDY MEDICAMENTS FOR CHILDREN

White metal can with top and base of plastic material or double-shell cap in some bright color, red, blue, green, etc. Top covered with gold label, band around the middle, gold, with photographs printed in color of ends.

II. CORN REMEDY

Brilliant red container in match-box form. Lettering white reverse plate printing. Photographs and numbers black and black and white halftone. Top of applicator black or red plastic material. Pads white with white or red transparent material.

III. LIQUID CLEANSING CREAM

Two bottles same shape and same closure, metal or plastic cap. Copper color would be attractive and the metal clamp that holds the two together could be of same material. Band around large bottle and flask-like container of baby bottle light brown or tan flexible wood. Closure of container on top same metal as above.

CANDY MEDICAMENTS FOR CHILDREN

Many people will accuse us of blasphemy because we don't suggest Mickey Mouse or the Big Bad Wolf as decoration for a children's package. Somehow these holy symbols of the great movie-gospel have lost some of their charm as far as our packaging ideas are concerned. On the other hand, we are firm believers that in spite of and in addition to all modern parent education and child psychology, it won't hurt our baby's character if we give him something that will make him take a laxative, aspirin, bone-builders or whatever it may be, with a certain amount of glee. There are two things that almost any child is interested in: first, the real world as he discovers it by and by, and second, something tangible that will make these discoveries more accessible to him: money. We do not suggest that a child should be paid for taking medicine, since this would indeed be contrary to all efforts of modern education. But we believe that it would be fun to have candy medicaments packed in a can in which they make a wonderfully exciting rattly noise while they are there and to convert this can later into a savings bank. We show a closure on our dummy that will elucidate this idea. The band of photographs around the can are pictures of boats, factory chimneys, automobiles, anything that a child of today is fascinated with and loves to talk and dream about. The maker's name could be printed or embossed on the top of the can or inserted in the colored band that frames the photograph. It goes without saying that both top and bottom of the can must be so made that only a grown person can remove them.

CORN REMEDY

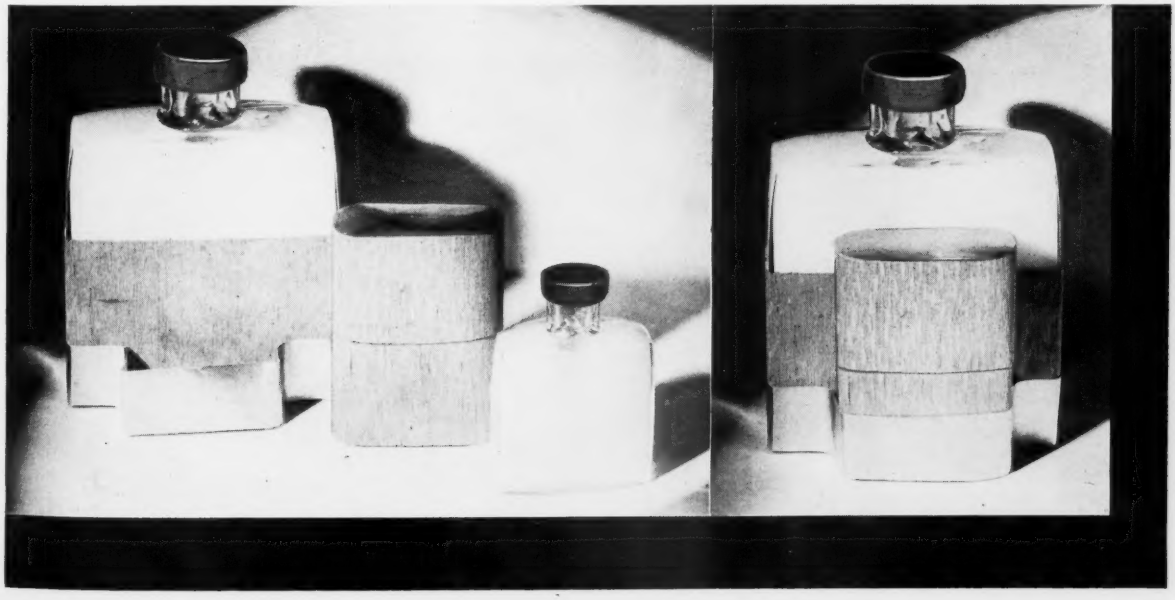
Among the famous seven plagues of Egypt there must have been one called by the hyroglyphic equivalent of corn. Corns seem to constitute one of the major evils of civilization and there are many remedies on the market designed to rid humanity of that curse.

Our idea in designing a new package for corn remedies was mainly guided by the fact that we have stressed before in these pages: there is no excuse for bad design on even the humblest item of merchandise; and that every pleasing package provides an upward stimulus to the sales volume. We think that a modern package should be so conceived that it should speak for itself with the least possible use of words and in so presenting the merchandise that its use is obviously and immediately demonstrated. Our package says "corns" even if that word were not printed on the cover. It shows the story of the corn remedy that it is selling: four photographs demonstrate four phases of the corn-drama and give eminent proof of the successful application of its contents.

The packaging of the cornpads themselves could be done in a manner that has long been successfully applied to pills of all sorts: each pad is wrapped in a piece of preservative substance, the whole forming a string from which each pad may be detached as needed.

LIQUID CLEANSING CREAM

Men and women alike, who have had the opportunity to complain about the lack of some cleansing cream that they could carry in their pockets and bags, would like our solution for the problem of after-tennis or after-golf faces. There are many cleansing creams on the market, but who wants to carry a large bottle or jar around? So we hit upon the "Kangaroo" package idea illustrated on these pages. A regular size bottle filled with liquid cleansing cream, carries a little one with it than can be refilled *at libertate* and whenever necessary. The baby bottle is clamped to the larger one with a metal band; and to make the entire thing practical and sporty looking, we have designed a flask-like container of flexible wood that will prevent the contents from spilling in bags and pockets, and make, perhaps, our friends and partners hope, that what we carry around in this smart fashion, is not just cleansing cream . . .



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PACKAGING NOTES

Edited by Elmer Sheets

"Squeegee"

As we came in with the milkman one morning recently we were suddenly confronted by an apparition which so startled us that we wondered if the pure, clear, spring water which we had been drinking since the evening of the day before had been loaded with some more potent fluid. In case you haven't already guessed it, the object which created all this furor was a milk bottle. It was the standard shape and size of milk bottles from time immemorial but what set it apart was a decoration in red and gold, which, against the white background furnished by the milk, gave beauty and class to what is ordinarily an undistinguished package. Further investigation disclosed that what we were then seeing for the first time was Borden's new bottle for "Golden Crest" milk. Since then we have found out that practically everybody who sees it talks about it, that Borden's sales have increased tremendously since "Golden Crest" was introduced, and that it has created quite a stir generally.

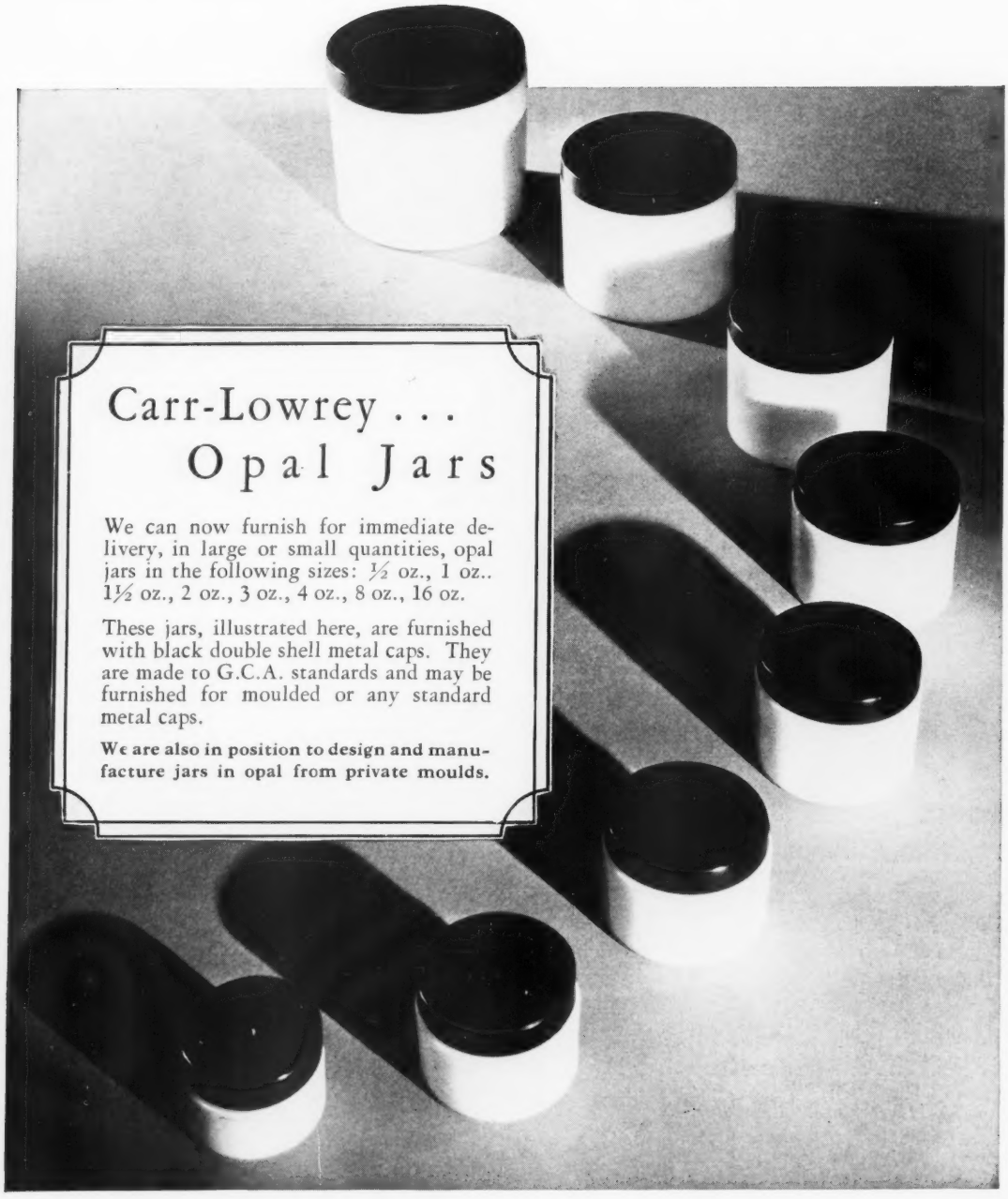
The "Golden Crest" is on the bottle by virtue of what we have come to know as a "burned on" or "fired in" label, and, so far as we have been able to determine, it is by far the best example of this type of work. This type of labeling or lettering is not new to drug and cosmetic manufacturers and we are reproducing here packages using this decoration which have appeared in these pages previously. But, so far as we know, drug and cosmetic manufacturers have never attempted such decoration in more than one color.

This type of decoration is, of course, applied by the glass companies as part of the manufacture of the bottle or jar. The process for applying such decoration was worked out in cooperation with the people who make ceramic colors. It is to one of the latter, Mr. C. H. Turner of the O. Hommel Co., that we are indebted for the following description of this process which is called the "squeegee" method.

"The firing of labels and letters on glass containers is of comparatively recent date. It was made possible by the development of vitrifiable colors which are essentially colored glasses of lower fusing temperature than the glass of which the container itself is composed. They also resist the action of the contents of the container and the attack of cleaning compounds to such an extent that they are practically permanent.

"Originally painted on glass by hand, these colors were later commercialized by using a rubber stamp, but when applied by this method, the appearance was flat and lifeless.

"The development of the squeegee method of application rectified this condition, causing the colors to appear in base relief and producing striking effects. In this process the color is rubbed onto the glass through a fine tightly stretched silk screen, the apertures of which are closed by a compound of nitro cellulose, so as to form the design."


Carr-Lowrey . . .
Opal Jars
We can now furnish for immediate delivery, in large or small quantities, opal jars in the following sizes: ½ oz., 1 oz.. 1½ oz., 2 oz., 3 oz., 4 oz., 8 oz., 16 oz.
These jars, illustrated here, are furnished with black double shell metal caps. They are made to G.C.A. standards and may be furnished for moulded or any standard metal caps.
We are also in position to design and manufacture jars in opal from private moulds.

CARR-LOWREY GLASS CO.

Factory and Main Office: BALTIMORE, MD.

NEW YORK OFFICE: 500 FIFTH AVE., Room 1427
Telephone: CHickering 4-0592

CHICAGO OFFICE: 1502 MERCHANDISE MART
Telephone: WHitehall 4326

J. W. QUINN, PRES. & GEN. MGR. JESSE QUINN, ASST. MGR.

TRADE QB MARK TRADE Quinn's MARK

J. W. QUINN DRUG COMPANY
INCORPORATED

MANUFACTURERS AND WHOLESALERS

GREENWOOD, MISSISSIPPI.

PROPRIETARIES
PHARMACEUTICALS
PACKAGE DRUGS
INSECTICIDES
VETERINARY PRODUCTS
FLAVORING EXTRACTS
COLORINGS
TIMBER KILLER
COTTON MARKING INK
BA DA TOILET PRODUCTS

Stokes & Smith Co.,
Philadelphia,
Pennsylvania,

Gentlemen:

It has occurred to us that you might be interested in our experience with the G-1 Universal Filling Machine we purchased from you. This machine has been in service now for two years and has repairs of $2.40 charged against it- $2.00 for straightening a shaft when we got careless and let a piece of metal get into the hopper, and 40¢ when we tightened the clutch too tightly and stripped the ears off a few fiber discs.

We had seen it operating in another plant and had been impressed with its performance. This performance, according to our analysis, includes the following factors: accuracy, dependability, flexibility, and speed.

Accuracy- this factor is, of course, most important, since upon it depends our reputation, which is, after all, our future business. With the G-1, we allow a working tolerance of plus or minus 1% up to 4 oz. and plus or minus 1/2% up to 1 lb., which is the largest size we fill. We may add in passing the variation is consistently less than our allowance.

Dependability- as we are far from service facilities, we must have a machine which will stand up day in and day out and which can be easily maintained by comparatively unskilled labor. The repairs mentioned above are eloquent on this point.

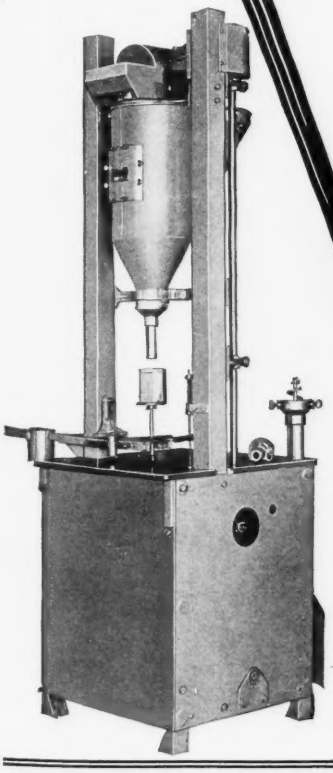
Flexibility- we are filling thirteen different products ranging in texture from Epsom salt to face powder into eight sizes and styles of containers. The G-1 is easily and quickly cleaned after a run, and it does not require a master mechanic to change it over for the next run.

Speed- we have no trouble maintaining a production of 18-22 packages per minute which is sufficient for our needs. Simple arithmetic will show that this is quite a volume in 8 hours.

All in all, we feel that the G-1 is ideal for the small plant with a varied line, and we hope that our experience will be helpful to others similarly situated.

With sincere good wishes, we are, yours very truly,
J. W. QUINN DRUG CO.
Jesse Quinn Barber, Prod. Mgr.

MEMBER PACKAGING MACHINERY MANUFACTURERS INSTITUTE ★ NRA ★ WE DO OUR PART



The S & S G-1 Filling Machine

STOKES & SMITH Co

PACKAGING MACHINERY — PAPER BOX MACHINERY

4912 Summerdale Ave., Philadelphia

British Office: 23, Goswell Road, London, E. C. 1

WRITE AND INQUIRE WHAT THIS FILLER COULD DO IN YOUR PLANT

This

IS WHAT

OWENS-ILLINOIS PUTS INTO A CONTAINER

BEFORE YOU PUT ANYTHING IN IT.

● **Among the many reasons for the uniform quality and accuracy which characterize Owens-Illinois pharmaceutical and proprietary ware are careful selection of raw materials, most modern automatic machinery, electric annealing lehrs and scientific control of every step in the manufacturing process up to and including the final inspection before packing. You may have heard a good deal about the unique laboratory and research facilities maintained by Owens-Illinois for the benefit of its customers. Less familiar, but none the less important, are the same facilities maintained as a constant check on *Onlzed* quality. *Onlzed* ware is better ware because there *is* a difference in glass. *Onlzed* design is a more effective design because Owens-Illinois' long association with the marketing of many kinds of glass packed merchandise has given its designers a thorough understanding of public buying habits. Scores of shapes, styles and sizes in stock-mold containers are always available. Your inquiry is invited. Owens-Illinois Glass Company, Toledo, O.**

Onlzed Service does not end with the container. The benefit of the Owens-Illinois wide facilities and long experience is available in helping you design the complete package whether it be a new line or re-designing your old line.

Onlzed
PHARMACEUTICAL AND PROPRIETARY WARE

Packages in Uniform

(Continued from page 153)

products, unless you at the same time have developed a method of clearly identifying and differentiating the separate items. Let us take the case of the medium sized drug store in the average American city. This drug store probably carries three or four of the standard drug lines—let us say, the Rexall line, the Squibb line, Lilly, Parke Davis, and a few others. All these products are arranged on the shelves and on the counter. Now let us suppose that a customer comes in and wants to buy Aspirin, Ephedrine Nose Drops, and Bicarbonate of Soda to get rid of an incipient cold. All the family packaging in the world will not help in that particular sale unless the words

ASPIRIN
EPHEDRINE
BICARBONATE OF SODA

are quickly identified by both the customer and the salesman.

This is a beautiful example to show how certain elements in the design may be carried through a variety of shapes and still preserve a family resemblance. Note that although the words "Skin Freshener," "Cleansing Cream" are in very small type, they are very quick-reading because not crowded.

Criticism of most of the drug lines which are now on the shelves of the drug stores is that these products are not quickly identifiable from other drugs in the same line, or lines. If you will refer to the photographs of Ward's and Walgreen's drug lines, you will notice how the entire emphasis of the package is concentrated upon the name of the product within it. The slowest witted person could not possibly make a mistake as to what was in each of these packages. Compare these to some of the standard lines now on the shelves of our drug stores. Individual identity is, in many cases, lost in the confusion of other material on the label. Note, however, that while every member of the Ward's and Walgreen's families may be instantly identified from its relatives, yet the family resemblance is there without question.

What are the methods whereby individual identity may be preserved and dramatized? Out of my packaging laboratory comes the case history of a line of bottled goods of over twenty-four different items, all packed in the same sized bottles, which had to carry a well-marked family identification, but which needed to establish immediate individual recognition on the part of the customer and the store clerk, for they are items

The distinction of this line is that it has kept its Victorian atmosphere while most other lines have gone modern. In spite of the detail of the surrounding design, the name of the individual product is fairly easy to read.

Walgreen's household line has labels in which everything is sacrificed to a quick-reading type identifying the contents. Note the similarity to the bulk packages in the prescription room, where mistakes in identity might be not only costly, but dangerous.

Beauty and Durability

IN

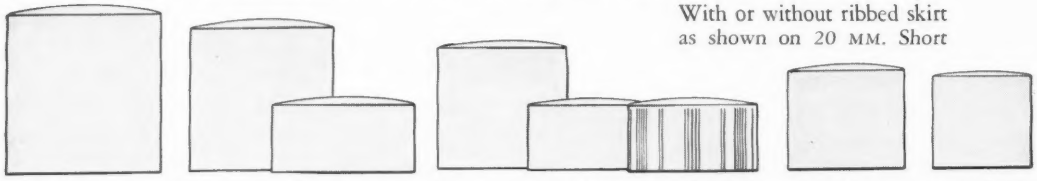
CHASE METAL CLOSURES

DRUG and cosmetic products gain increased selling appeal with Chase Closures. Their brilliant "Jewel-Glo" finishes attract the eye . . . suggest quality within. Made of durable brass, Chase Closures seal tightly and are non-breakable . . . affording perfect protection to the product. Obtainable in colorful enamels, in brass, nickel and chromium tones in the standard sizes shown below. Experienced Chase designers will be glad to offer suggestions for special closures.

Standard Sizes *(all illustrations are drawn actual size)*

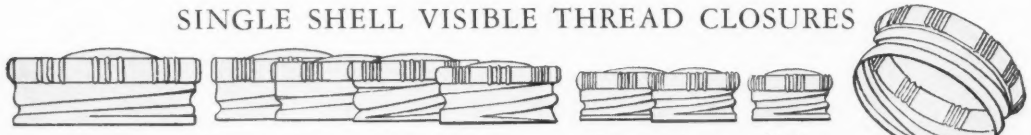
DOUBLE SHELL CONCEALED THREAD CLOSURES

With or without ribbed skirt as shown on 20 MM. Short



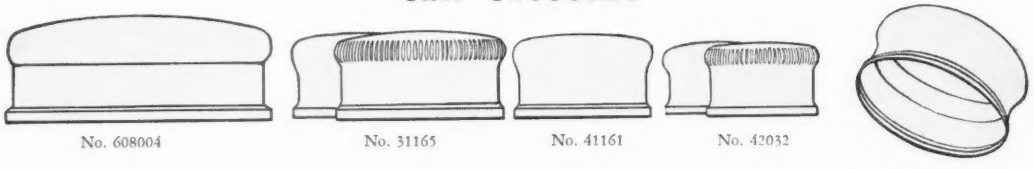
24 MM. LONG | 22 MM. LONG | 22 MM. SHORT | 20 MM. LONG | 20 MM. SHORT | 20 MM. SHORT | 18 MM. LONG | 15 MM. LONG

SINGLE SHELL VISIBLE THREAD CLOSURES



28 MM. | 24 MM. | 22 MM. | 20 MM. | 18 MM. | 15 MM. | 13 MM. | 12 MM.

SLIP CLOSURES



No. 608004 | No. 31165 | No. 41161 | No. 42032

Chase "Jewel-Glo" Slip Closures are offered in a variety of distinctive metal and enamel finishes. Nos. 31165, 41161 and 42032 come with or without knurled top.

CHASE

CHASE BRASS & COPPER CO.

–INCORPORATED–

Container and Closure Division

Main Office and Factory
Waterbury, Conn.

New York Office
Chase Tower
10 East 40th Street

Here are three packages that are a step in the right direction. Note that the product name is beginning to emerge from the confusion of the other printed matter. All these labels could be improved by getting rid of the rules and lines which cause "vibration" that retards quick reading.

that had a very fast turnover. The family resemblance was established by the broad general design. Against this the identity of each individual product was fortified by three distinct features: (1) the name of the product in a clear, readable type dominating the entire design; (2) the uses of a distinct color for certain flavor groups within the family; and (3) the development of an "identity spot" or symbol for each flavor which would serve for quick recognition on the part of the clerk. Although this line of bottled goods carries unmistakably the family resemblance, there is not the slightest possibility of a clerk mistaking one item for another, even under the pressure of rush hour business, for all three aids to identification outlined above are on the label, the neck, and the cap of the bottle.

In my experience the most important thing to remember is that a quick-reading type cannot be beaten for differentiating the various products in a family. But in order to make it quick-reading it must have plenty of room. It must stand out by itself on the package, not be crowded by the other matter in the design. The Walgreen line is very good from this point of view because there is practically nothing else on the face of the package except the name of the contents in a fast-reading type. The inspiration for this design probably comes from the bottles from which prescriptions are filled. These must be distinguished by quick-reading type, for mistakes might be disastrous.

Aside from the loss of identity of individual products, perhaps the greatest remaining danger is the tendency toward monotony. I can remember the day when it was my mother's ambition to own a set of china in which every piece was of the same design. When she finally had it she didn't like it, for the result was very monotonous. A modern housewife who has a sense of decoration is inclined to have a variety of colors and designs in her chinaware to avoid the deadening effect that is produced by two much repetition. The consumer's interest will soon go slumbering if there is no variety in color and design in the packages offered for sale. If that were not the case, a plain brown wrapping around every package in a store, such as I understand is the case in the Commissariats in Russia, would suffice. How uninteresting shopping would be in such a store!

I have just been working on one of the most interesting packaging jobs ever produced in my laboratory. As this is not yet on the market, I cannot describe it in detail, but our objective was to produce a family resemblance amongst a large number of allied products, and at the same time, stimulate interest in the individual items. The family resemblance was established by the similarity in the lettering and in the general style or treatment of the label. The diversity of the various products, however, was dramatized by a very charming all-over design of each of the products shown growing in its natural environment, done in brilliant water color effects against a black background. Every one of the labels intrigues the interest for the particular product, and yet, taken all together these labels encourage mass purchasing, for each one stimulates interest in all the others. Such would not be the case if the designs were too much alike—with nothing to distinguish them but the printed name.

PACKAGES SELL WHEN THEY'RE MOLDED OF DUREZ!

A PACKAGE can be merely a container—or it can be a useful, appealing, "added attraction" that swings the sales your way. This Schick razor box is one of the latter.

The Schick box is light, compact, smoothly finished and impervious to soap and water—this razor box will sell Schick to any man who is tired of stained, rusty boxes or containers that rapidly go to pieces; tired, too, of plush linings that get messy the moment water hits them. This new box has a permanent look that appeals to men and women alike.

No matter what *you* make, there's probably some way in which Durez can give you more appealing, faster-selling packages. Durez' many advantages are: It won't chip, rust or peel. Its smooth, good looking finish is *permanent* and its colors are integral. It is structurally strong, yet light in weight. It is chemically inert . . . no matter what you pack in it, Durez will not affect the contents or be affected by it.

Write us today—tell us what you make—and let us show you how other manufacturers in many fields have profited by the use of Durez for packages, displays and actual products. There's no obligation at all. General Plastics, Inc., 357 Walck Road, North Tonawanda, N. Y.

Packed in its new magenta-colored Durez box, the Schick Injector Razor enters the mass-market, retailing at $1.50. Note how the box is molded around the product, preventing rattling, keeping things tidy.

DO YOU PACK → LIQUIDS? CREAMS? SALVES? ROUGE?

If you do, you can make your packages more appealing with Durez, in the form of caps, jars and containers of all sorts. Note these new applications for molded plastics, how appealing they are—and visualize your product packed in a smart, modern molded Durez container. Tell us your problems and what you're aiming at, and we'll gladly make suggestions.

CHARBERT has made two most attractive additions to the novel Drumstick line—a compact and lipstick. The compact is of the loose powder type with rouge cake in the cover. Lipstick is of the swivel type with a slip cover.

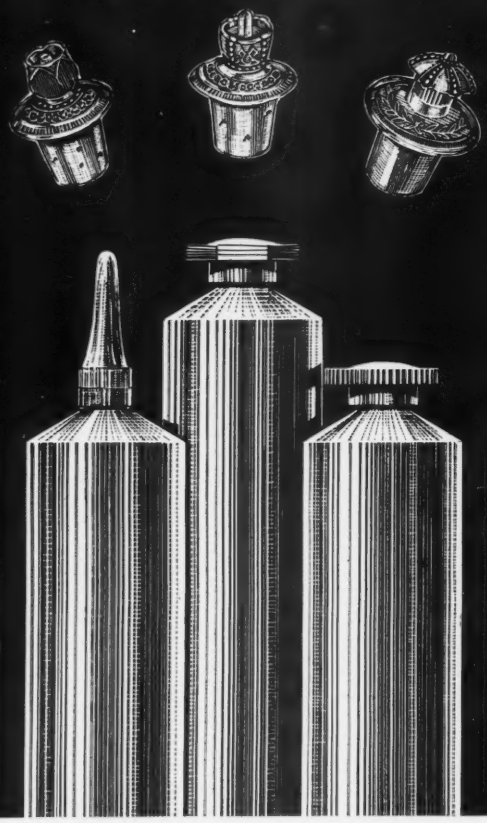
BOURJOIS Evening in Paris compact is most attractive carrying out the color scheme of the line. The case is in blue with silver toned band.

SQUIBB Magnesia Wafers are now being packaged in bottles of one hundred. The bottle is of blue glass with blue and white label and blue plastic cap. Carton is in blue on white.

MARION LAMBERT announces a new "Dew" nail polish available in two types: Regular and Creme; and in six shades. Other new items added are cuticle oil and nail and cuticle removers.

COLLAPSIBLE TUBES
& BOTTLE SPRINKLER TOPS

Our experience of more than fifty years in designing and manufacturing the collapsible tubes used for many famous products is at your service. We cordially invite you to consult with us on your tube problems. Your inquiries will be given sympathetic consideration.



WHITE METAL MFG. CO.
HOBOKEN NEW JERSEY

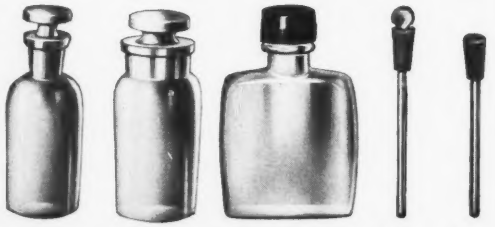
New York Office:	Chicago Office:	Detroit Office:
F. L. Butz	Charles A. Rindell, Inc.	R. M. Stevenson
393 Seventh Ave.	64 West Randolph St.	506 Donovan Bldg.

NEW items
in the **GLASS PRODUCTS LINE**

Package No. 14 for Polish Remover ⅛ oz.
Package No. 13 for Perfume ⅛ oz.
Package No. 11 for Nail Polish ⅛ oz.
Package No. 19 for perfume
Package No. 18 for perfume ¼ oz.

Fine quality, attractive designs and wide variety of sizes are features of our bottles, rods, caps and other products for perfumers. Send for price list.

GLASS PRODUCTS CO.
VINELAND, N. J.



Package No. 60 Mushroom stopper, narrow mouth ½ to 32 oz.
Package No. 70 Mushroom stopper, wide mouth ½ to 32 oz.
Package No. 50 for Inhalants ½ oz
Package No. 15 "Penny Head" Rod
Package No. 16 Plain Rod

ARCO—

for Fine Corks

Only selected grades of Spanish and Portuguese corkwood imported directly by ARCO are used in ARCO corks.
ARCO corks are clean, accurately cut, of consistently high quality, and honestly graded.
We will cheerfully send samples and prices.

ARCO CROWN CORK & CAP CO., Inc.
21 SPRUCE ST., NEW YORK
FACTORY 3903-5 SECOND AVE., BROOKLYN, N. Y.

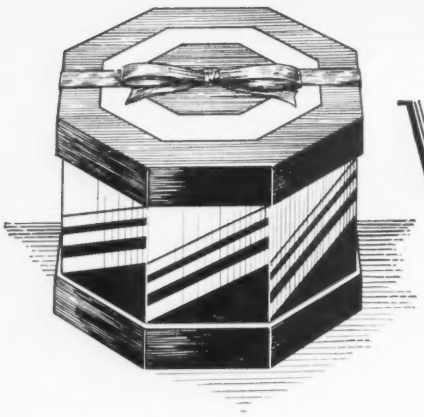
VELVETOUCH—a product of the Jewell Tea Company, Barrington, Ill., is packaged in a bottle with effective use of applied color lettering. The applied color design takes the place of the usual label. Bottle is closed with a double shell metal cap. Photo, courtesy Owens-Illinois Glass Co.

GUERLAIN'S new display is in white high gloss lacquered wood and chromium. Three shelves spot the products which are illuminated by four small bulbs concealed within the perpendicular cylinder at the right center of the display.

COSMETIC JARS which are practical and inexpensive are offered by Owens-Illinois Glass Company. These jars are of the straight-sided type with applied coloring. They are produced in two shades—a delicate green and a rich ivory. A wide range of sizes—1, 2, 3, 4, 8, and 14 ounce—enable their use on a family of items. Jet-black double shell metal caps are supplied with the jars.

LA VALL, Inc., of Chicago, are packaging their manicure preparations in a spherical case of most unusual appearance. The case offers after-use as a powder jar. It is molded of lustrous black plastic.

QUINLAN'S new Fresh-up Kit contains the following items: Face Powder, Liquid Cleanser, Astringent, Skin Stimulant, Make-up Lotion, Skin Youth Cream, and Liquid Finishing Cream.



Why should you—

Worry about your package problems. Our designers are at your service and as near as your nearest phone. Our Plant is equipped to give our customers the best of service and quality of workmanship. It will be a pleasure for us to have our designer and salesman call on you at any time to assist in developing your packages, displays, or even your whole merchandising plan. We wish to afford SERVICE in every sense of the word to our customers.

YOUNG BROTHERS, Inc.

Displayologists and Box Manufacturers

722 EDDY STREET PROVIDENCE, R. I.

"FILMA-SEAL"

(the double seal of cap and film)

We are pleased to announce the granting to us by the United States Patent Office, the U. S. Letters Patents No. 1,916,977 and No. 1,966,273 fully covering all types of "FILMA-SEAL."

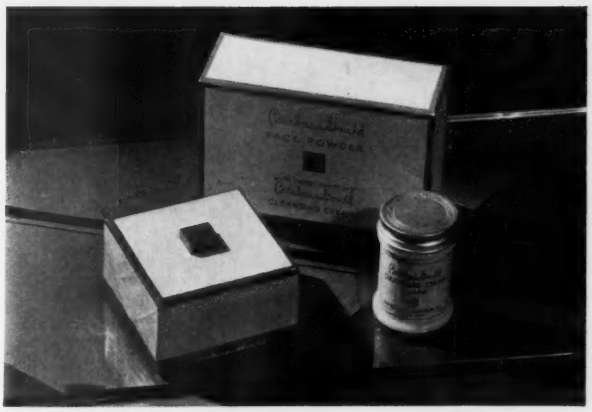
FERDINAND GUTMANN & CO.
BROOKLYN, N. Y.
Established 1890
U. S. Patent & Pats. Pending—Trade Marks Reg.

BOTTLES and JARS

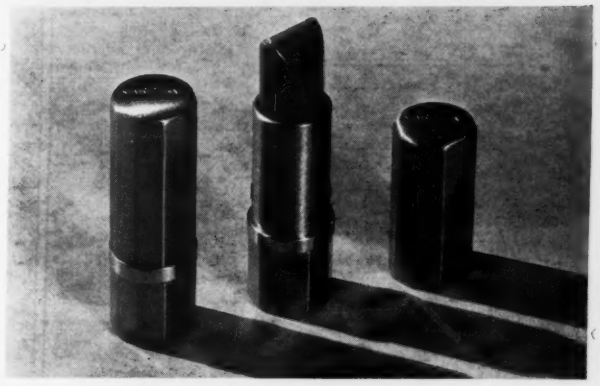
- A full line of bottles and jars always in stock for immediate delivery.
- Available in small or large quantities. Jars: Clear, Opal or Colored, in all standard sizes—any quantity from stock.
- Perfume bottles, standard moulds or special design.
- Lotion bottles—many very attractive designs for your immediate use.
- Bottles and jars with and without caps. Let us quote on any size order for any type of bottle or jar.

HAGERTY BROS. & CO.
10 PLATT ST., NEW YORK CITY

BARBARA GOULD is offering a combination package of face powder and cleansing cream. The cleansing cream is a free gift as the price of the package is the price of the face powder alone.



YARDLEY'S new lipstick is of a steel finish. The shape octagonal, with a brass band at the point where the cover pulls off.



QUINLAN is offering a smaller sized package of Muscle Oil packaged in a jet-black bottle with a silver label. Another new Quinlan package is a smaller size of the famous Strawberry Cream Mask.

DOROTHY GRAY is introducing several new manicure preparations. The new nail polish has an entirely new basic lacquer, much heavier, smoother, and lasting. It is available in seven shades. The new remover is of the oily base type. The new Cream for Brittle Nails prevents dryness, brittleness and breaking of nails.

PACK-URGES*

by "Duff" Gordon

"CAPLESS TUBE" PROVEN SUCCESS AFTER A YEAR'S TRIAL!

Just a little over a year ago Pack-Urges featured a "Capless" tube, suggesting it as the ideal container for tooth pastes, creams, and pastes—by virtue of its eliminating for all time the "lost" tube cap problem—or the costly item of leakage on shipments for foreign climes. Much publicity resulted—and a tooth paste that adopted the new closure reported "success" from the outset.—Now—more than a year later—we have tubes which were filled and numbered for later tests—others in use for twelve months—and these samples prove beyond question that the "Capless" tube overcomes many bothersome questions; is economical to manufacture, as it eliminates cap costs; lives up to its guarantee of automatic closure after each time it is used; and gives manufacturers of tooth paste, shaving cream or what have you, an additional advertisable feature for their products. We are predicting a continued success for the "Capless" tube and will send you samples to prove our point. Write us now for costs and proofs of our statements as to its success.

• • •

MAILERS FOR EVERY PURPOSE

The mailing box illustrated here is just one style of the wide range of "Gordon" Mailers, suitable for every type of sampling campaign . . . Some are corrugated lined—others have sealed flaps—all are approved by the United States Postal Service . . . Show us what you want to mail and we'll build a box around it that will deliver your product in perfect condition . . . Prices are moderate . . . Workmanship unexcelled . . . A call will bring you full particulars.

• • •

PERFUME AND POWDER BOXES

Every perfumer knows that boxes for Perfumes, Cosmetics and Toilet Preparations should have a note of individuality *built into the box*. Style trends and interior decorative preferences are but two of the many phases which we keep in mind when making boxes for the cosmetic trade . . . The only set-up box included in the best All American Twelve Packages was handled in detail by us (designed by Mrs. Avery Robinson)—just another example of our ability to interpret your ideas in definite salable boxes. Call us in on your next box purchase . . . We'll serve you right—and save you money.

"Pack-Urges" is issued occasionally in the interests of better packages. If you wish to receive it regularly it will be sent free upon request. Address: ***H. R. M. Gordon —A Complete Packaging Service—331 Madison Ave.*** *(Phone Murray Hill 2-0339) New York.*

*Copyright and trade-mark applied for

Colored Jars *and* Bottles..

We color standard opal and flint glass containers for the cosmetic manufacturer. Over 1000 shades and finishes to choose from. Small or large orders filled promptly

DURA-COLORS, INC. 1814 E. 40TH STREET, CLEVELAND, OHIO

Write for samples and prices

Non-rolling extra-depth cap, oil-resistant rubber parts, SAFTEE Ball Glass.

New Perfection Dropping Parts are Products of years of experience in meeting manufacturer's particular requirements. Bakelite caps or rubber parts obtainable in any color desired. Write for samples and quotations.

PENNSYLVANIA GLASS PRODUCTS COMPANY
410 No. Craig St. Pittsburgh, Pa.

NEW PERFECTION
"The Part that Gives Your Product Prestige"

LABELS

ENGRAVED AND EMBOSSED
Faithful Service Since 1881
JOHN HORN
837 Tenth Ave. New York

MIXERS: for liquids, pastes, creams, powders.

MILLS: for ointments, powders, pastes.

GRINDERS: for crude drugs and dry materials.

All sizes. All types.

CHARLES ROSS & SON CO.
83 Emerson Place Brooklyn, N. Y.
Phone: PRospect 9-8400

A Practical Container
An Attractive Package
An Excellent Display

May we help you with your PACKAGING PROBLEMS?

GREEN BROTHERS, INC.
35 Valley St. East Providence, R. I.

RIEGELINE

FOR

TRANSPARENCY

WITHOUT EXPENSE

Riegeline is a newly developed product, combining the economy of ordinary glassine with the transparency of more expensive wraps. It twists well, works rapidly on any wrapping machine, and will not expand in wet weather or shrink to the splitting stage in dry weather.

LIBERAL SAMPLES AND PRICES PROMPTLY FURNISHED

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342 Madison Avenue · New York

Protector of Your Product . . Defender of Good Will

THE best defense is *offense*. The best cure for slumping sales is oftentimes repackaging. Turning to tubes has smoothed out many a sales depression . . . turned the corner back to profits. Let us suggest how clever designing plus exceptional quality in tubes can help you to increase sales for your product.

Ask us to furnish complete information regarding sizes, styles, types, caps and other details of tubes. We will gladly send catalog.

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PROVIDENCE, R. I.

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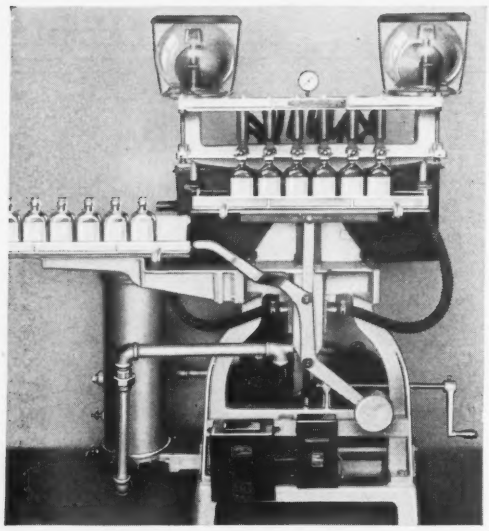
Phone Murray Hill 2-0339

Pacific Coast Office
6370 Franklin Ave., Hollywood, Calif.



FOR

Semi-Automatic

HOOK-UPS

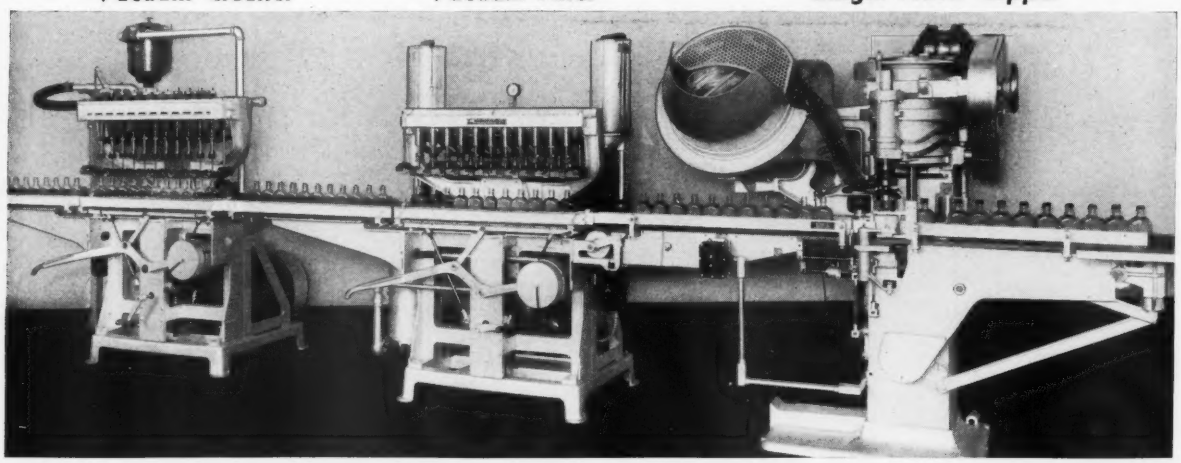
THE IMPROVED SAMCO JR. VACUUM FILLER

Pneumatic's semi-automatic machinery meets the requirements of smaller productions both as to speed, output and cost, with the same flexibility, the same mechanical and operating dependability as its fully automatic line.

The Improved Samco Jr. Semi-Automatic Filler is an outstanding example. The absolute non-drip feature of this equipment enables bottles to be labeled first and then filled, without fear of soiling the labels with drippings from the nozzles. Alone, the Samco Jr. will fill liquids or semi-liquids into any style or shape of bottle at the rate of 30 per minute. With the addition of the other two machines you can, at any time, develop a complete semi-automatic bottling plant rated to produce 100 gross pint-size bottles per day. This machine can readily be extended to 8 heads to produce 130 gross pint-size bottles per day, which clever operation can further improve 10 to 20%.

Write for more complete details of cost and performance facts on Pneumatic Semi-Automatic bottling equipment.

Vacuum Cleaner *Vacuum Filler* *Single Head Capper*



PNEUMATIC SCALE
PACKAGING MACHINERY

PNEUMATIC SCALE CORPORATION, LTD., 70 NEWPORT AVENUE, QUINCY, MASS. (NORFOLK DOWNS STATION)

Branch Offices in New York, 117 Liberty Street; Chicago, 360 North Michigan Avenue; San Francisco, 320 Market Street
Melbourne, Victoria; Sydney, N. S. W. and Trafalgar House, No. 12 Whitehall; London, England

PRODUCTION FORUM

By Francis Chilson
Production Engineer

This department invites inquiries from manufacturers seeking equipment for producing or packaging drug and cosmetic products. No charge is made for this service.

Viscosity Regulator

Here's a device which will interest all of you who are fortunate enough to have a good volume of collodion products, nail lacquers or other products containing highly volatile solvents. The machine consists of a tank containing an agitator, a regulator and a control valve, and its purpose is to regulate viscosity by admitting more solvent when needed. The agitator is connected with a regulator. Any increase in the viscosity of the product

increases resistance to the movement of the agitator and this resistance is transmitted through the regulator to a control, needle valve, which opens and admits enough solvent to restore normal viscosity. The machine has to be set, of course, for the required viscosity. Its accuracy is said to be as close as 2.5%. It is also being used to regulate the viscosity of oils which suggests a possible application in the manufacture of creams and ointments. The unit is made by Merritt Engineering and Sales Co., Lockport, N. Y.

Cooler

Recently I described a cooler and its possible applications in cooling liquids and ointments. Here's another which might even be better in that it would be easier to clean. This one also consists of a nest of horizontal tubes one above the other for circulating, water brine or other refrigerant, or any combination of the two, which might be deemed advisable to secure gradual, counter-current cooling. But all the tubes are enclosed in a jacket of non-corrosive metal. When the unit is made and welded into a solid assembly, a high vacuum is drawn to exhaust the air around the inside tubes and to cause the jacket to press tightly against them in order to insure maximum heat transfer. If, for instance, an ointment had to be chilled to a solid state, this even surfaced jacket would be easy to scrap down after the batch had been run over it. The thing could be used for chilling shaving cream too! It is made by Dole Refrigerating Co., 661 Washington St., Chicago.

Bin Truck

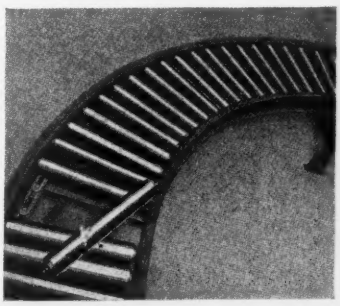
The Stackbin Corp., Providence, R. I. makes a handy little bin truck for transporting a number of different items such as labels, cartons, caps, etc. The truck has five tiers of bins, open on one side. Large bins occupy the lower part of the truck and smaller ones the upper portion. There are four large bins, four medium sized ones and eight small ones on the truck. It would be handy to have one of these for supplying automatic packaging lines with caps, labels, wrappers, cartons, etc.

Suggestion

Did you know that you can minimize loss of heat by radiation from steam jacketed kettles, mixers and stills by painting their exteriors with a bright finish aluminum paint? One brand is made by Wilbur & Williams, Boston, Mass.

Live Roller Curves

Here's an improvement in conveying systems that I have often wished for. It is a live roller curve, made by the Standard Conveyor Co., St. Paul, Minn. It is built like other roller conveyors excepting that underneath the rollers there is a universal-jointed, flexible driving chain which imparts motion to the rollers. This enables you to hook up one of these curves with



any kind of conveyor and permits carrying cases or trays around the curve with uniform spacing and it provides positive movement without jamming. Hence, from one power source it is possible to drive an entire conveying system (provided it isn't excessively long). In a recent instance I had to move cases from a casing conveyor to an automatic gluer which had to be set at right angles to the conveyor, and the cases had to be spaced with reasonable uniformity in order to keep the gluer busy. This device would have solved that problem neatly and it would also have saved some sweat and worry. It seems to me that small packages and bottles can easily be carried in the same manner by arranging two or more of this company's universal chains in grooves parallel to each other. In this case the rollers wouldn't be needed of course.

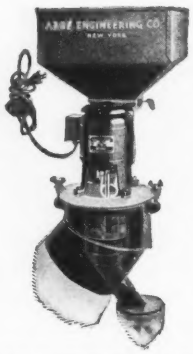
Let Abbé Show You How • • •

To improve your face powder • To lower production costs
To increase your output

Abbe face powder equipment has revolutionized the art of making face powder and has made old type mixers and sifters as obsolete as a dodo bird.

HERE THEY ARE!

ABBE PEBBLE MILL: A famous authority on face powders says that pebble mills can not be surpassed for color and perfume dispersion and fineness of milling. IT IMPROVES COLOR • IT IMPROVES TEXTURE • IT DEVELOPS ODOR.



A B B E BLUTERGESS MIDGET SIFTER: Especially designed for the small and medium sized manufacturer, this sifter makes your powder as delicate as mist. FAST • INEXPENSIVE • EFFICIENT.

ABBE BLUTERGESS TURBINE SIFTER: For the larger manufacturer who requires a very fast, large output machine, this TURBINE sifter was developed. S P E E D Y • EASY TO CLEAN • LOW OPERATING COST.

ABBE ENGINEERING CO.

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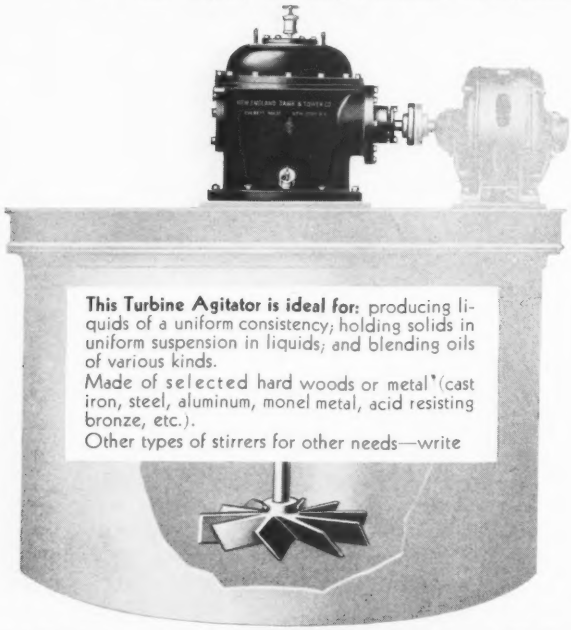
"NEW ENGLAND" TURBINE AGITATORS

. . . for rapid, thorough mixing of liquids



This Turbine Agitator is ideal for: producing liquids of a uniform consistency; holding solids in uniform suspension in liquids; and blending oils of various kinds.

Made of selected hard woods or metal (cast iron, steel, aluminum, monel metal, acid resisting bronze, etc.).

Other types of stirrers for other needs—write

NEW ENGLAND TANK AND TOWER COMPANY

EVERETT, MASS. 50 CHURCH ST., NEW YORK

AGITATING EQUIPMENT SPECIALISTS

Rebuilt and New Equipment

Send for Bulletin No. 104

Rodgers New Belt Conveyors
Stokes & Hoepner Powder Fillers
Alsop, International & Fowler Vacuum Bottle Fillers
Rodgers New Vacuum Bottle Fillers
U. S. Acme 6 spout Filler
Kiefer 6″ & 10″ twelve plate multiple disc Filters
Dry Powder Mixers, 100 to 2000 lbs.
Rodgers New Accumulating Tables
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15″, 20″, 24″, 30″, 36″ Copper Revolving Pans
Stokes and Colton Tube Fillers and Closers
Pony Mixers—8, 15, 20 and 40 gallons
Cream Mixers—Champion, Read, 20 to 80 qt.
Rodgers Tube Fillers & Clipless Closers
Lightning and Rodgers Portable Electric Mixers
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Ointment Mills—7″, 12″, 18″ diameter
Complete Pill and Tablet Making Machinery
Copper Kettles, Capsule Fillers, Pumps, Filters, etc.
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Stein-Brill Corporation

(Agents for George G. Rodgers Co.)

183 Varick St., New York, N. Y.

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Extraction Process

What would you think of an apparatus which would enable you to grind, extract, filter, concentrate and recover menstruum in one unit? I commented on the possibility of such a machine in a recent issue of the department but this sort of apparatus is much nearer to being a reality than I thought. Here in New York a unit is being developed for vanilla bean extraction, which, when finished, will embody these various features. Already the grinding is being done in the menstruum but the separation of the extract from the exhausted marc is being done in a separate unit. The extract containing the finely pulverized marc is pumped through a special type of pressure filter which retains the marc and allows the extract to pass into a tank below it. Patents are being drawn up on the basis of combining the two in one machine. I can see no reason why the same unit can not be used for all types of drug extraction and also for pyrethrum flowers. It is expected that all operations including reducing the extract to a dry powder can be performed in this one piece of equipment in a very short time. I am not at liberty yet to reveal full details, but as soon as the vanilla unit on which we are working is in operation and the patents have come through, I will tell you more about it.

While on this subject it might be well to report that I received a letter from one of the big equipment houses saying that they had perfected a one-machine extraction and concentration process for one of the big drug houses and would give us details as soon as they could get permission from their customer to do so.

There is so much doing in this particular field that I'll bet anybody a dinner that the whole process of extraction, concentration and solvent recovery as we have known it will have been completely revolutionized within two years.

Paint

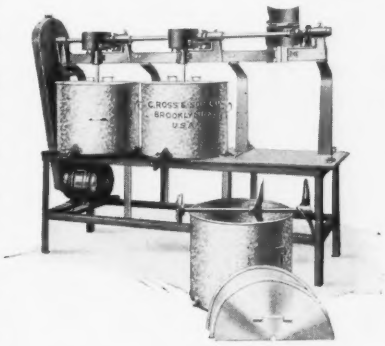
Now you can paint walls made of Celotex, fibreboard, balsa wood and other porous materials which suck up ordinary paint like a sponge, with a new paint developed by Mitchel Rand Mfgrs., 49 Murray Street, New York. This paint, known as Mira-Lith, can be sprayed or painted right on the raw board without sizing, and when it is dry it can be washed with soap and water. Fourteen tints are available and a high gloss finish is given to the surface painted with it.

Preservative

The American Crayon Co., Sandusky, O., has introduced a liquid wood floor preservative which can be applied quickly to factory floors and which is said to eliminate cracking, splintering, scaling oil, seepage, besides being fireproof. It has a lustrous finish.

Batching

Here's an arrangement which should make it easier for you to make up batches of lotions and liquid medicines containing chemicals that require dissolving or partial processing in different solvents. Charles Ross & Son, Co., 83 Emerson Place, Brooklyn, offer a gang mixer driven from one power source. The unit consists of



three or more movable tanks set upon a steel platform. A shaft is provided across the top with connections for agitators for each tank and all tanks have covers. All the agitators can be driven individually or collectively and both tanks and agitators can easily be removed. The unit is built in several standard sizes and it may be used for different parts of the same batch or for several different batches.

Package Insulation

In an attempt to make a water-in-oil emulsion recently I accidentally learned something about package insulation, which will interest you. Samples were put into some old glass and plastic containers that were lying around the lab and set away on a shelf to test stability. Meanwhile along came the hot spell after which I opened the samples. Everyone had separated excepting those in the Durez jars which were perfect. In order then to check the value of insulation I made up additional samples of the same material but this time I also used glass jars with all-around foil labels while others were put into foil cartons. Again, those in the unprotected glass broke, those in the foil cartons didn't break, those with foil labels with no additional protection broke very slightly. This experience is interesting, not because emulsions commonly break in hot weather, as most of them may melt but will not separate, but because of freezing in winter which often causes emulsions to break. Reversing the old saying, "What will keep out the heat will keep out the cold," hence, this experience may contain an idea for you.

Time Switch

Paragon Electric Co., 37 West Van Buren St., Chicago, offers a simple time switch with which you can control the operation of gadget so that you can set it for the time you want the mixer to knock off and then you can forget about it. A number of manufacturers use these in such a way that mixers and pebble mills can be operated at night when no one is in the plant. This arrangement enables you to get an extra batch or two out of equipment every day without having to pay overtime.

Vibrator

For settling or leveling operations there is nothing handier than a vibrator. But as vibrating tables and similar units come high, many manufacturers buy the vibrating element and attach it to a hand made table or other device. You can buy vibrators in all sizes and frequencies from Syntron Co., 410 N. Lexington, Pittsburgh. Another useful application for such a device is to attach one to face powder filling machine hoppers to keep the material from arching and to maintain a uniform flow to the augers.

Universal Filler

The Universal filling machine put out by Stokes & Smith Co., Summerdale Avenue, Philadelphia, has always interested me because of the ease and cleanliness with which it fills ointments, creams, pastes, powders, crystals, etc. But I never realized the flexibility of this machine until I read the new bulletin just issued by the company. Here are some of the items: epsom salt, ground nutmeg, rat food, cocoa, psyllium seed, pile ointment, deodorant paste, face powder, gelatin, glue, tooth powder, zinc oxide ointment, vanishing cream. The machine will fill and pack by weight or by volume depending on your needs.

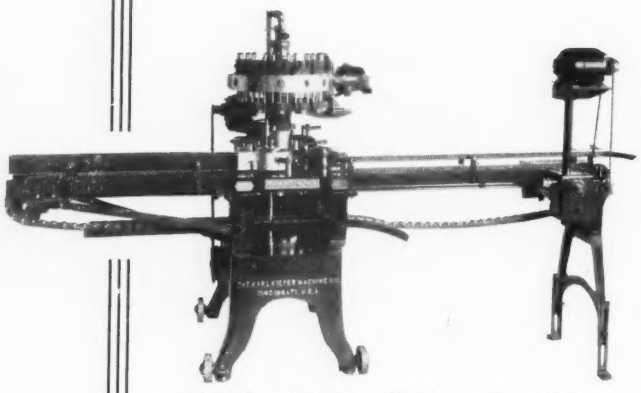
Bush Announces

W. J. Bush & Co., Ltd., London, has announced the production of amyl cinnamic aldehyde dimethyl acetal, which is said to have the jasmine type odor superior to that of amyl cinnamic aldehyde itself.

Color of Apomorphine Solution

Apomorphine solution, after standing long time, becomes colored. Green color of solution is caused by oxygen of atmosphere. Its formation is accelerated by action of alkali dissolved out of glass containers. Stable solutions of apomorphine for enclosure in glass ampules may be made by using only pure, uncolored crystals of alkaloid with small addition of sulfurous acid or potassium metabisulfite.

Write FOR THIS NEW *BOOK* TODAY



Kiefer Automatic Rotary Air Cleaner, illustrated, is widely used in plants packing food products, drugs, oils, whiskies, etc., with most satisfactory results. It is one of the modern Kiefer machines that cleans glass containers by means of compressed air!

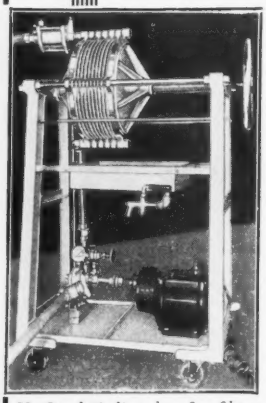
New book, "The Cleaning of Glass Containers," just off press! You will find it interesting, instructive, valuable! Copy will be sent on request!

A number of the latest and most successful Kiefer Machines developed expressly for cleaning glass containers by water, steam, air, are illustrated and described.

P. Jorgensen, 311 California St., San Francisco
T. C. Kelly, 222 W. Adams St., Chicago
M. C. Finn, 10 High St., Boston
A. J. Sterling, 225 Broadway, Room 1209, New York

THE *Karl Kiefer* MACHINE CO. CINCINNATI

Does Your Liquid SPARKLE?



Hy-Speed 10-disc ultra-fine filter

When you bottle your liquid does it look inviting to the eye? Is it clear-brilliant-sparkling? The product that possesses these qualities invariably commands a prominent place in the dealer's display—and a favorable impression on the consumer's mind.

Let HY-SPEED disc filters give your liquid that necessary "eye appeal." These filters come in all sizes and models.

Just submit a small sample of your liquid and we'll give it a free filtration test in our laboratory. There's no obligation.

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FILTERS · MIXERS · BOTTLE FILLERS
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ALSOP ENGINEERING CORP.
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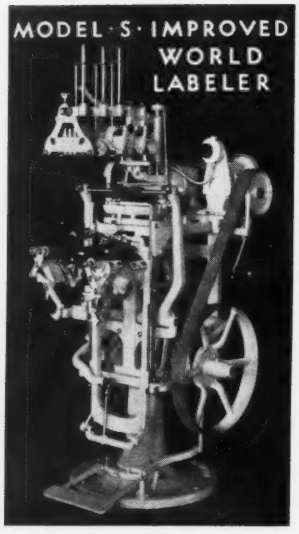
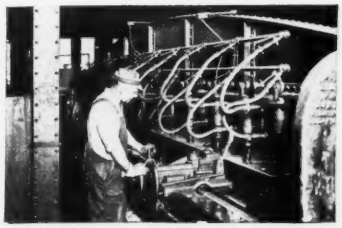


The most flexible labeling machine. Easily equipped for labeling any size bottle or jar. Many exclusive mechanical features, developed by manufacturing experience of more than 35 years.

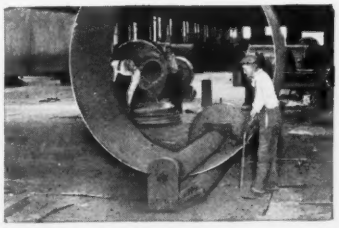
Economic Machinery Company
WORCESTER, MASS.
Makers of Complete line of automatic and semi-automatic labelers.

Glass Lined Tanks

Some time ago I described to you the processes used by Pfaudler in making glass lined tanks. But "One picture is worth ten thousand words" according to the ancient Chinese proverb. I wish to present a series of pictures which reveal the high lights of the process in an interesting way.

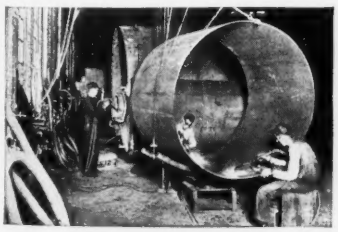


Equipment fabrication begins with flat steel plate. Shearing machines true up and bevel the edges for welding.



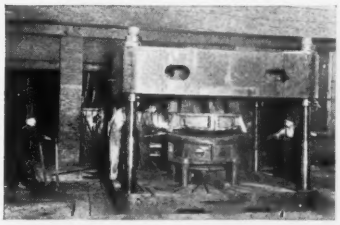
From the shearing machine, steel plates are placed on rollers that turn flat plates to any desired diameter.

Mill scale is removed by steel grit under pressure. All dust in the chamber is removed almost instantaneously.

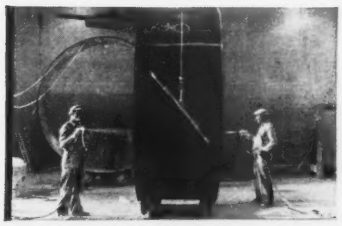


The tank cylinder, heads, openings, are next welded together. Glass lined vessels require high grade welding.

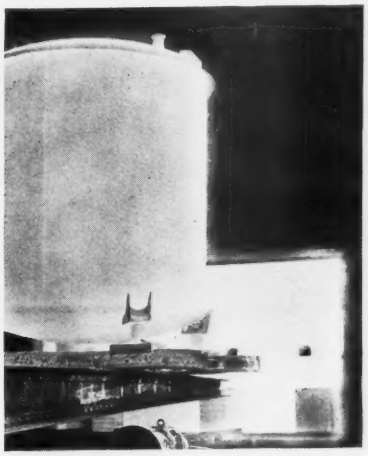
When all welding is completed, the joints are ground smooth with the steel itself on powerful grinders.



Under tons of pressure, tank heads are formed on giant hydraulic presses after first being heated in furnaces.



Glass enamel is applied to the steel shells by either a spray or "hot dust" method, depending on the enamel.



Next comes the enameling operation. Photo shows tank just removed from furnace—red hot!

Fixation of Odors for Face Powders and Creams

Almost as important as the door itself is the ability of a perfume to be lasting. In order to accomplish this result in perfume oils for face powder about 50% of the oil should consist of fixatives.

The base of these fixatives is almost always a mixture of products which is dominated by Vetiver or its acetate, Sandalwood, Santalyl acetate and one of the Methylionones. This mixture gives the base "powder" odor, and in addition according to the desired effect Heliotropine, which gives a flowery odor, Coumarine a Fougere odor, the Musks and Ambers which give a warm animal effect, Patchouli which gives a popular note, much liked by some, also all the Resinoids, Opoponax, Labdanum, which gives an amber character, Myrrhe and Tonka resin.

For creams it is not necessary to have such a high proportion of fixatives in the perfume. At the most 25% of fixatives is certainly sufficient. One utilizes the same materials as above but many of these are colored and the selection must be made so that the cream will not become discolored.

Saponified creams should never give a colored reaction with phenolphthalein paper, when mixed with ten times their weight of hot water. Above this degree of saponification would alter the perfume and cause discoloration. The pH of a cream should be more or less acid, as an alkaline condition tends to darken certain perfume ingredients which in turn will discolor the cream.

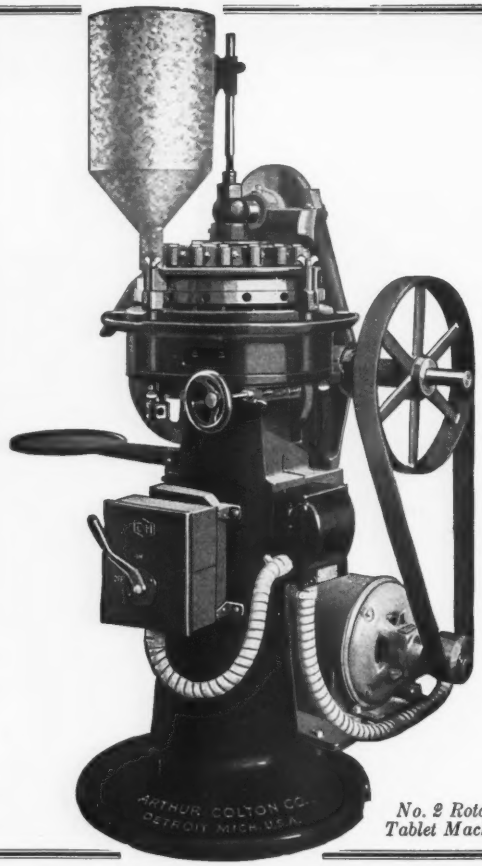
If vegetable oils and other products susceptible to rancidity are used in the cream, a preservative of some kind is almost always used, but the perfume chosen should in a certain measure play the part of an antiseptic to help prevent alterations in the cream. Benzyl salicylate used as a fixative is also an excellent preservative in creams.

Lobelia Tincture Deposit

Tincture of lobelia in ether sometimes shows deposit in container. This is usually green. However, precipitate is usually readily dispersed in the tincture when well shaken. Use of a little vegetable mucilage will aid in keeping precipitate dispersed. Same difficulty also sometimes occurs with tincture of hyoscyamus.

Hexuronic Acid as Antiscorbutic

Hexuronic acid is $CH_2OH.CO.(CHOH)_3COOH + H_2O$. Its action against scurvy is very marked even when used in extremely small quantities. It is suggested that this may be the acid that constitutes vitamin C and gives it its reducing power. Methyl-narcotine is usually held responsible for this action. Use of this acid in antiscorbutic medicaments is indicated.



No. 2 Rotary Tablet Machine

New and Improved!

We have no yearly models—but improvements and refinements are being constantly added to Colton machines.

There are over five hundred Colton Rotaries in use.

Superior design, sturdy construction and ease in operation have made this possible.

The No. 2 Rotary Tablet Machine has such desirable features as *positive pressure*, eliminating varying thicknesses of tablets; *hardened steel gear drive*, eliminating frequent replacement of worms used on other makes, and *sliding upper punch holders*, to hold the punches rigidly, enabling the manufacture of special shaped tablets most satisfactorily.

Write for Catalogs.

ARTHUR COLTON COMPANY

2620 East Jefferson Ave.

Detroit, Michigan

ERTEL PORTABLE MIXERS
DIRECT DRIVEN or BACK GEARED

Furnished in all sizes and for any purpose. Scientifically designed, accurately balanced, they are light, easy to handle and are always ready for instant service. Note the handy grip, an exclusive feature of the Ertel Mixer, which makes it truly portable.

BACK GEARED MIXER

ERTEL ENGINEERING CORP.
105 EAST 16th STREET
NEW YORK, N. Y.

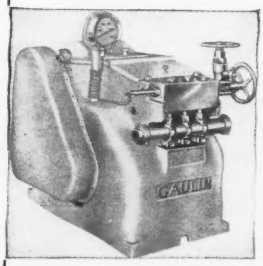
MANUFACTURERS OF
Ertel Asbestos Disk Filters, Ertel Asbestos Filter Sheets, Allegheny Stainless Steel Tanks, Portable Bottle Fillers, Glass-Lined Tanks, Portable Mixers, Pumps and Other Liquid Handling Equipment.

IMPROVE
EMULSIONS and SUSPENSIONS
with the
Manton-Gaulin TWO-STAGE Homogenizer

EMULSIONS: Cod liver oil, castor oil, hand lotions, liquid creams, emulsified tonics and medicines. Homogenizing improves and stabilizes emulsions of all types.

SUSPENSIONS: Milk of magnesia, liquid face powder, colloidal sulfur, lotions and medicines. Homogenizing secures better dispersion and improves suspension of solids.

SOLUTIONS: Cough medicines, proprietaries, mouth washes, lotions. Homogenizing secures better distribution and solution of medicaments and perfumes.



The Manton-Gaulin Homogenizer is more effective and less expensive than a colloid mill. Sizes are available from twelve to several hundred gallons per hour.

The Manton-Gaulin Manufacturing Co., Inc.
7 Charlton Street EVERETT, MASS.

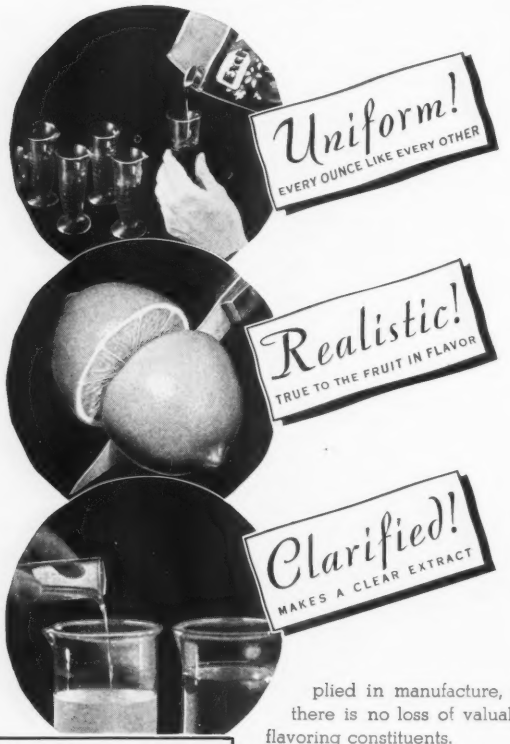
NEW NOXZEMA products are a Combination Cleansing and Night Cream, Suntan Oil, Noxglo Face Powder, and Foot Cream. Cleansing Cream is packaged in opal with black double shell cap. Foot cream is packaged in green glass jar with green and white label and carton. Suntan oil has a brown and yellow label and a brown double shell cap. Face powder colors are silver and blue. Cleansing Cream and Foot Cream have characteristic Noxzema odor.

HUSH is offering a new deodorant stick selling at 25 cents per stick.

MOLDED-TOPPED CORK closure is announced by Dodge Cork Company. Designed which could not or would not adopt screw threads, the Dodge cork is said to have as much appearance value as a regular plastic cap, yet it requires no mold change for the bottles. The semi-circular wedge molded on the inside of the cap acts as a screw-driver in twisting the cork out.

MOLDED PLASTIC JARS of a new type for deluxe cosmetic creams have been announced by Colt. These jars have the same exterior dimensions as the thicker-walled glass jars, so there is no change in apparent capacities when the plastic jar is adopted. Variety of colors is available, and a note of contrast is added by the light-colored band which encircles the jar just below the skirt of the screw cap.

The Best *Oil of Lemon* VALUE*



Made with Another Brand Bought on the Open Market	Made with Exchange Cold Pressed Oil of Lemon
Unfiltered 5% (by Volume) Extracts of Oil of Lemon in 95% Alcohol	

A FACT: No matter how much you pay for oil of lemon you cannot duplicate the quality advantages that Exchange Brand gives you at low cost.

This holds true whether you use it "straight" or for making extracts.

Exchange Brand is always uniform. Exclusive methods and large production permit the elimination of seasonal variations. Once your formula is established the lemon flavor of your product remains the same month in, month out.

The flavor is faithful to the fruit. Exchange Brand is 100% Cold Pressed from rich California lemons. No heat is applied in manufacture, so there is no loss of valuable flavoring constituents.

And no other oil is Clarified. This step in the Exchange process removes the unwanted substances that cause turbidity in extracts and impair purity of flavor.

A thorough test in your products costs but little. Yet it will prove beyond doubt the superiority and economy of Exchange Brand. Make it now.

*Write our distributors for attractive prices.

TO LEMON EXTRACT MANUFACTURERS—Add 95% alcohol to Exchange Brand Oil of Lemon and get immediately a clear lemon extract. No cloud. No delay. No waste. A 5% by volume solution in alcohol conforms to the U. S. Government's definition of lemon extract.

Exchange BRAND
OIL OF LEMON

Sold to the American market exclusively by

DODGE & OLCOTT COMPANY
180 Varick Street, New York City

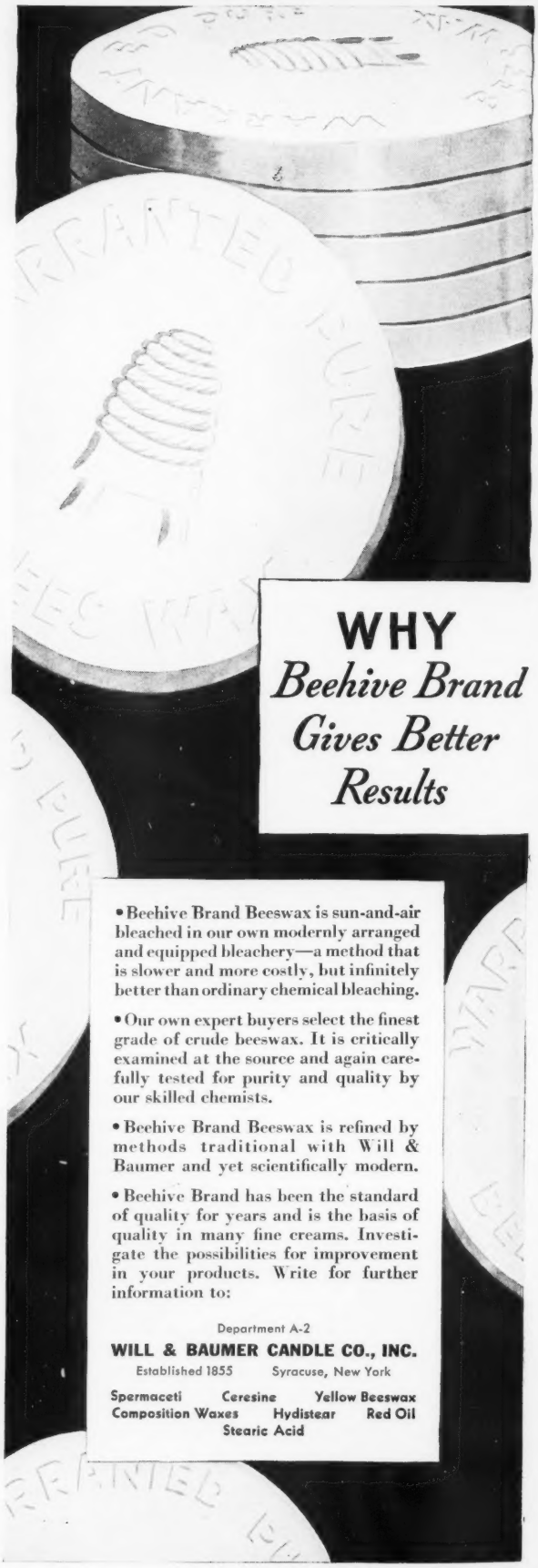
FRITZSCHE BROTHERS, INC.
78-84 Beekman St., New York City

Distributors for

CALIFORNIA FRUIT GROWERS EXCHANGE
Products Department, Ontario, California

Producing Plant: EXCHANGE LEMON PRODUCTS CO., Corona, Calif.

Copr., 1934, Products Department, California Fruit Growers Exchange



WHY *Beehive Brand Gives Better Results*

- Beehive Brand Beeswax is sun-and-air bleached in our own modernly arranged and equipped bleachery—a method that is slower and more costly, but infinitely better than ordinary chemical bleaching.
- Our own expert buyers select the finest grade of crude beeswax. It is critically examined at the source and again carefully tested for purity and quality by our skilled chemists.
- Beehive Brand Beeswax is refined by methods traditional with Will & Baumer and yet scientifically modern.
- Beehive Brand has been the standard of quality for years and is the basis of quality in many fine creams. Investigate the possibilities for improvement in your products. Write for further information to:

Department A-2

WILL & BAUMER CANDLE CO., INC.

Established 1855 Syracuse, New York

Spermaceti Ceresine Yellow Beeswax
Composition Waxes Hydistear Red Oil
Stearic Acid

Brushless Shaves

(*Continued from page 138*)

emulsifiers, lubricants, counter irritants, (in some cases stypics or astringents and antiseptics are added), and we should also have materials which will lower surface tension and promote solubility.

As brushless shave is a vanishing cream made by the reaction with appropriate modifications of an alkali with a fatty acid, it is necessary first of all to use a fatty acid. Stearic is most common and probably cheapest. Its place is taken in some cases by processed stearates such as glyceryl mono stearate et al. All of the usual alkalis may be utilized. Triethanolamine is useful as an emulsifier and as a solubility agent. Powdered coconut oil soap is useful as an emulsifier, and also as an agent which promotes solubility besides imparting the property of tackiness, mentioned above. Sulfonated oils, especially castor, are useful in promoting solubility, but will tend to make the cream somewhat yellow if the right grades are not used. Cetyl alcohol aids in lowering surface tension and possesses a lubricating and counter-irritant effect which is very desirable. Cocoa butter mineral oil and lanolin are chiefly useful as lubricants. Sodium lauryl sulfonate and other sulfonated fatty alcohols lower surface tension and promote solubility. Glycerin and its substitutes keep the cream from dehydrating and according to some authorities improve wetting action.

With this summary of the reason for using various materials we offer the following formulas: (All quantities are given in percentages by weight.)

No. 1. Brushless Shave

Triple pressed stearic acid	20.00%
Powdered cocoanut oil soap	.5 "
Cetyl alcohol	1. "
Mineral oil (65-75)	6. "
Sodium lauryl sulfonate	2. "
Glycerin	7. "
Potassium hydroxide	.25 "
Water	62.25 "
Triethanolamine	1. "

Procedure: The stearic acid and mineral oil are melted together and brought to 70° C., at which temperature the cetyl alcohol is added. Meanwhile the water is heated to 75° C. and the potassium hydroxide dissolved in it. This is followed by the powdered soap after which the sodium lauryl sulfonate, glycerin and triethanolamine are added and the whole is stirred until solution is perfect. Stirring should be slow as the combination of soap and sodium lauryl sulfonate will produce a very considerable amount of foam. This solution is slowly but steadily poured into the melted fatty materials at a rate of speed which will not allow the temperature difference of five degrees to change, while the agitator is turning quite rapidly. After all the water has been added the rapid agitation is continued until the cream begins to thicken after which it is slowed down to avoid beating air into the cream, a contingency which would make it spongy. Temperature control is very important. The solution should never be more than five degrees above the temperature of the melted fats.

Comment: This cream has a fine lustre. It is of good average consistency. It spreads well and is readily soluble. It provides a comfortable shave. Its solubility can be further enhanced by decreasing the mineral oil.

No. 2. Brushless Shave

Triple pressed stearic acid	20.00%
Powdered cocoanut oil soap	.5 "
Cetyl alcohol	2. "
Cholesterin	1. "
White mineral oil (65-75)	4. "
Glycerin	8. "
Sodium lauryl sulfonate	2. "
Potassium hydroxide	.5 "
Triethanolamine	1. "
Water	61. "

Procedure: This cream is made exactly as above, the cholesterin being dissolved in the hot stearic acid.

Comment: This cream is slightly heavier than the one above due to the increased amount of stearic acid saponified. It has a beautiful sheen, excellent lubricating properties and spreading qualities. It is not as soluble as its predecessor due to the increased amount of cetyl alcohol and the cholesterin.

No. 3. Brushless Shave

Stearic acid	20.00%
Powdered coconut oil soap	.5 "
Cetyl alcohol	1. "
Mineral oil (65-75)	3. "
Sodium lauryl sulfonate	2. "
Glycerin	10. "
Potassium hydroxide	.75 "
Water	62.75 "

Procedure: As above.

Comment: This cream is not as lustrous as the two above. Its consistency is midway between the two. Its solubility is not very great, it compares in this respect with No. 2.

No. 4. Brushless Shave

Stearic acid	12.00%
Glyceryl mono-stearate C. P.	5. "
White mineral oil (65-75)	4. "
Lanolin	2. "
Glycerin	5. "
Water	71.50 "
Borax	.5 "

Procedure: All of the ingredients are put into the water and are brought to the boiling point with constant agitation. The heat is then shut off and the mixing continued until the cream sets.

Comment: Although this cream is lustrous its appearance differs from the others very materially. Its consistency is good, its solubility fair. It is more tacky than any of the others.

Small Cosmetic Manufacturers
can now obtain
High Quality Materials in Small Lots

Borax USP, 5 lbs. per lb. 12c.
Boric Acid USP, 5 lbs. per lb. 15c.
Beeswax USP, discs, 5 lbs. per lb. 45c.
Super Talc RFR (Best) 5 lbs. per lb. 20c.
Magnesium Carbonate USP, 5 lbs. per lb. 20c.
Colloidal Kaolin No. 30, 5 lbs. per lb. 15c.
Zinc Stearate USP, 1 lb. 35c.
Mineral Oil (For Creams), 1 gallon $1.00.
Spermaceti USP, 5 lbs. per lb. 32c.
Lanolin Anhydrous USP (Nearly Odorless) 5 lbs. per lb. 35c.
Cocoa Butter Odorless, 1 lb. 55c; 5 lbs. 50c per lb.
Methyl Para Hydroxybenzoate, (Preservative) ¼ lb. for $1.00.
Cosmetic Ochre R (For Rachelle shades) ¼ lb. 30c.
Cosmetic Pink B (For Naturelle and Peach shades) 1 oz. 30c.
Hair Finse Colors (12 shades available) ¼ lb. $1.50.

Gum No. 17 (Stringy Waveset Gum) 1 lb. $1.00.
Gum Paragon (For Waveset) 1 lb. 50c.
Green Color for Waveset, 1 oz. 50c.
Cholesterin C. P. 1 oz. $1.25.
Lecithin (80% in Mineral Oil) 2 ozs. for 50c.
Sulphonated Castor Oil, 1 qt. 55c.
Sulphonated Olive Oil, 1 qt. 60c.
Castor Oil USP, Tasteless, Odorless, 1 qt. 65c.
Fullers Earth, 5 lbs. per lb. 12c.
Isopropyl Alcohol, ½ gallon for 75c.
Menthol USP, 1 oz. 35c.
Stearic Acid, T. P. 5 lbs. per lb. 25c.
Petrolatum USP (Best White) 5 lbs. per lb. 25c.
Precipitated Chalk USP, 5 lbs. per lb. 15c.
Sesame Oil, 1 qt. 60c.
Peanut Oil, 1 qt. 60c.
Titanium Dioxide, 1 lb. 50c; 5 lbs. 45c per lb.
Zinc Oxide USP 1 lb. 30c; 5 lbs. 23c per lb.

f. o. b. New York. Terms: Remittance with order.

The above quotations are for small quantities only. Large amounts can be purchased at substantial savings. We can quote the largest buyers advantageously.

If you do not have one of our lists, ask for same.

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91 SEVENTH AVENUE NEW YORK, N. Y.
ALL CHEMICALS FOR THE COSMETIC INDUSTRY

Italian Talc

Fifty years of practical experience has proved to the master perfumers throughout the world that Italian Talc is the only one that possesses all the features necessary to produce a fine powder.

They have found it uniform and reliable and therefore they insist on Italian Talc exclusively.

Exclusive representatives of the Italian Producers

Chas. Mathieu, Inc.
120 Liberty St. New York City

. . . We welcome your inquiries and will be glad to send samples . . .

No. 5. Brushless Shave

Stearic acid	20.00%
Cetyl alcohol	4. "
White mineral oil	3. "
Sodium lauryl sulfonate	4. "
Glycerin	10. "
Potassium hydroxide	.7 "
Water	58.3 "

Procedure: The method of manufacture is similar to No. 3.

Comment: This cream has a faint lustre. It is quite readily soluble. It provides good shaving qualities.

A convenient way to develop a brushless shave is begin with a basic formula such as: stearic acid 20, water 60. With these two factors constant, make samples using different types of emulsifiers in different percentages. Add other ingredients and observe their effect on the basic cream. When a desirable property is shown to be present, keep the ingredient which gave it as another constant factor and add others to give additional properties being sought for.

In connection with materials it is well to mention in conclusion that sulfonated oils, triethanolamine, glyceryl monostearate, and sulfonated fatty alcohols impart to brushless shaving creams a degree of translucency which may seem objectionable to some people. This translucency can always be overcome by adding about one and one-half per cent of titanium dioxide and also by increasing the percentage of stearic acid. We do not favor more than twenty per cent of stearic acid. Cetyl alcohol is also very useful as a lustre modifier. So is cocoa butter. Lecithin has been advocated as a brushless shave ingredient. It has a tendency to make cream slightly spongy and dark in color, a factor which probably increases with age. Gum tragacanth is favored by many who prefer a slightly spongy type of cream. It does, of course, aid in stabilizing the emulsion.

Ouch!

(Continued from page 141)

No. 1

Lactic acid	4%
Salicylic acid	15 "
Trichlor tertiary butyl alcohol	3 "
Turpentine	3 "
Castor oil	2 "
Ether	15 "
Acetone collodion	58 "

Procedure: Dissolve the solids in the ether, add the rest of the ingredients and mix with the collodion.

No. 2

Salicylic acid	15%
Lactic acid	3 "
Extract of cannabis	2 "
Acetone	5 "
Flexible collodion	75 "

Procedure: Dissolve the salicylic acid in the collodion, mix and add the cannabis, lactic acid and acetone.

No. 3

Extract of cannabis	1%
Acid salicylic	10 "
Terpentine	4 "
Acetic acid glacial	2 "
Cocaine alkaloid	2 "
Flexible collodion	81 "

Procedure: Dissolve the salicylic acid in the collodion and then the cocaine. Mix and add the rest of the ingredients.

No. 4

Potassium iodide	.75%
Iodine	.75 "
Isopropyl alcohol	20. "
Flexible collodion	78.5 "

Procedure: The iodine and potassium iodide are dissolved in the alcohol and added to the collodion.

No. 5

Lactic acid	3%
Tincture iodine	3 "
Indian hemp extract	1 "
Salicylic acid	10 "
Trichlor tertiary butyl alcohol	2 "
Collodion	81 "

Procedure: The salicylic acid is dissolved in the collodion followed by the trichlor tertiary butyl alcohol and the rest of the ingredients which have first been mixed.

Benzocaine

(Continued from page 142)

non-irritant. Its application produces prompt anesthesia, and insures absence from pain from six to thirty-six hours, depending on the character of the tissue. In the following conditions, benzocaine will assure relief to those occupying the dentist's chair.

Pulpitus: Pain due to pulpitis and exposed pulps may be allayed almost immediately with benzocaine by introducing it into the pulp chambers on a pellet of cotton, moistened with oil of cloves. The cavity is then sealed for 24 to 48 hours.

Pyorrhea Alveolaris: Painful pockets may be successfully treated with benzocaine by dusting the pockets. Pockets may be packed with moist gauze or cotton soaked with benzocaine in a solution of alcohol or any etheral oil solvent.

Hypersensitive Dentine: Desensitizing with benzocaine is accomplished in the following manner—after the cavity has been thoroughly dried, benzocaine is introduced on a pellet of cotton moistened with alcohol, then sealed for 24 to 48 hours. The application may be renewed again if desired.

Scaling: Teeth scalers may be dipped in a concentrated solution of benzocaine in oil of cloves.

Desensitizing Paste: Made with 10% benzocaine in petrolatum. May be rubbed into the area of injection a few minutes before the needle is inserted, thus eliminating the pain caused by the first prick of the needle.

for BATH SALTS

2 New and Refreshing Odors

Each at the very attractive price

$4.85 per pound

- *Violet Supreme*
- *Carnation*

Highly concentrated, these two perfumes produce an odor in bath salts which is very acceptable to the public.

BUDD Aromatic Chemical Co. Inc.

667 WASHINGTON STREET, NEW YORK

AQUAPHIL

There is a decided trend at the present time toward softer creams. This new type of cosmetic cream can best be made with ISCO AQUAPHIL. LANOLIN is also an important ingredient.

AQUAPHIL is an excellent base for sunburn preparations and many other forms of cosmetic creams and lotions.

LANOLIN
ISCO American Made, U. S. P.

ISCO SILVER TALC

Also ask for prices on Sunbleached Beeswax, Yellow Beeswax, White and Yellow Ozokerite Wax, Stearic Acid, Spermaceti Wax, Paraffin Wax, Ceresin Wax.

INNIS, SPEIDEN & CO.
117-119 LIBERTY STREET, NEW YORK

• Jersey City • Chicago • Boston • Niagara Falls • Gloversville, N. Y. • Owego, N. Y. • Cleveland • Philadelphia •

Gingivitis: Cases of painful ulcers, catarrhal, syphilitic, tuberculous, or cancerous ulcers of the mucosa, will be relieved promptly by dusting benzocaine powder upon the affected area—canker sores, burns, lacerated gums, raw surfaces, caused by new dentures, are promptly relieved by benzocaine, either by dusting on the surface or applying in paste form made with lanolin.

Post-Operative Pain: Is promptly prevented by application of benzocaine to the sockets of extracted teeth and roots.

Sluggish Granulation: In cases of tardy healing, sluggish granulation, dry pockets, etc. benzocaine acts as a stimulant free from irritation. It produces a rapid and painless healing process of all classes of wounds, and assures the patient a maximum of comfort.

Getting away from the realm of medicine and dentistry, benzocaine is used with effective results in many products, some of which I will briefly call to your attention. The action of depilatories is markedly caustic, due to the action of the sulfides, and this can be relieved by the incorporation of a small amount of benzocaine. Shaving creams and after shaving lotions are improved with benzocaine by producing a feeling of well-being after application. Creams for allaying the irritation of sunburn, insect bites, ivy poisoning, etc. are more effective when containing a small amount of benzocaine.

The chief problem in combining benzocaine in many preparations is its difficult solubility, but this can often be overcome with the use of proper organic solvents and vegetable oils.

The field of application where in benzocaine may be used to advantage is broad indeed, and many products on the market today, would be much improved if benzocaine were included in their composition.

Alcohol

(Continued from page 144)

volume is obtained. In modern practice the two stages are sometimes combined and carried out in one continuous distilling unit consisting of several columns.

A final process called denaturation is also resorted to. This permits the use in various commercial processes without payment of any tax as the denaturing process makes the alcohol unfit for beverage purposes.

Alcohol, either pure or denatured, is the most useful solvent next to that of water which is used today. The most outstanding use of alcohol from the humanitarian standpoint is in the manufacture of ether. Ethyl alcohol is also used in making antiseptics such as iodoform, tincture of iodine and mercurochrome, and in the making of thousands of medicinal preparations, some of the best known being sweet spirits of nitre, aspirin, paregoric, camphor, acetanilide, insulin and salvarsan.

The varied uses of this valued solvent are two numerous to mention here. Suffice it to say that about 70,000,000 to 80,000,000 gallons are consumed in the United States yearly in such varied industries as perfumery and cosmetics, varnishes and lacquers, medicines, automobiles, paints, dyes, confectioner's colors, gelatin food products, etc.

New Medicines

(Continued from page 149)

cacao. Small amounts of a radioactive substance are also present. Same manufacturer.

Merz-Allium, a prophylactic agent against arterial calcification, intestinal catarrh, diarrhea, colic, worms, etc., is a "Sirup. Allii sativ. comp. whose effect is enhanced by the addition of extracts of mistletoe (Viscum album), horse-tail (Equisetum arvense) and hawthorn (Crataegus). Merz & Co., Chemische Fabrik, Frankfurt a/M.

Acetonal-Hemorrhoidal Salve contains 10% trichlorbutylsalicylic acid ester, 2% Absol. salve base in 20 g. packages. Chem. Fabrik Athenstaedt & Redeker, Hemelingen.

Perlatan-Calcium-Tablets. Packages of 40 tablets. 0.01 mg. Perlatan=100 M. E., 0.25 g. Calc. lactic., 0.05 g. Natr. bromat. C. F. Boehringer & Sohne, Mannheim.

Caltheocor Comp. Tablets. Packages of 20 tablets. Theobromin.-Calc.-Salicyl. 0.50 g., Acid. phenylethylbarbitur. 0.025 g. Adler-Apotheke, A. Kremel, Wien XIV.

Mollcerin is a salve base consisting of "Ung. Cholesterini neutrale." It is stable, homogeneous, odorless and neutral. It can absorb up to 400% of water and with a 0.5% boric acid solution (e. g. 65 parts of boric acid solution and 35 parts Mollcerin) gives a soft cream which will neither dissociate nor become spongy when rubbed upon the skin. The salve is especially recommended for use in packaged creams such as summer creams (bismuth subnitrate 10-18%, glycerine 5%) and for preparations containing balsam Peru, ichthyol, iodine, potassium iodide, mercury preparations, naphthol, sulfur, camphor, menthol, eucalyptol, salicylic acid, alumina, zinc oxide, resorcinol, tar, etc. The water absorbing power of vaseline is greatly increased by the use of Mollcerin: a mixture of 50 parts Mollcerin and vaseline prepared by gentle heating will absorb 200-220 parts of water. Apotheker Otto Schmatolla, Chem.-pharm. Praparate, Hamburg 21.

Lactosic-Powder. Acid aluminum lactate with about 70% lactic acid available on hydrolysis. Eggochemia, A. Eggers Sohn, Wien XIX.

Domal-Stuhlzapfchen contain Extr. Flor. Salv. off., Adeps Lanae, Vaselinum, Acid boric, Aqua Rosae, Bals. peruv., 01. Cacao. Insert a suppository once to twice daily. Bombastus-Werke, Freital-Zauckerode bei Dresden.

Druckreys Krautertee. According to Griebel & Weiss, the preparation consists of comminuted blooming tansy herbs. H. Druckreys Speziel-Krauter-Technadlung, Berlin, Neukolln.

Open Rx Departments

TODAY there is a very definite trend toward visible prescription departments in drug stores. The value of having attractive packages of prescription compounding ingredients becomes immediately apparent.

Pass this tip to your retail druggists: a complete new set of MM&R essential oils in bottles with uniform bright red, green and gold labels and handsomely embossed stoppers enhances any prescription department. They give an impression of cleanliness, orderliness, accuracy.

The appearance of the package is important. But what's inside a package is more so. Utmost care is taken in the manufacturing, examination and cleaning to assure highest quality and uniformity in all MM&R essential oils.

The original packages "put up" under the supervision of specialists, assures prime condition and clarity.

Supply your trade with superior essential oils, attractively packaged by MM&R. Send in your order today or write for further details.

MAGNUS, MABEE & REYNARD, Inc.
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Manufacturers and Importers of

Mohawk Brand Oil Peppermint — Essential Oils — Terpeneless Essential Oils
Basic Flavoring Materials — Infused Oils — Aromatic Chemicals
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NIPAGIN M
NIPASOL M

Neutral, odorless and non-irritating

Recommended for their high efficiency in agar emulsions, gum solutions, eye washes, hair waving preparations, vaginal douches, vegetable oil emulsions, skin creams, and in any products which require an antiseptic or preservative.

Samples upon request

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MYSORE GOVERNMENT Sandalwood Oil

Distilled from
Santalum Album

INSIST ON ORIGINAL CANS AND CASES

Agents for the United States and Canada

W. J. BUSH & CO.
(Incorporated)
Essential Oils
New York
Chicago National City, Calif. Montreal

PERFUMERS' SHELF

Carnation and the Eugenols

Carnation talc and bath powder have enjoyed unusual popularity over the past year and it is believed that this odor is at last gaining its proper place among the other types of flowery scents of the present day.

The basic ingredients necessary for this type of perfume are the eugenols which are derivatives of clove oil and cinnamon leaf oil. First of importance in the carnation type is eugenol—a phenol which is not only present in the above mentioned oils, but is also found in bay oil, pimento oil, sassafrass oil, and patchouly oil. From eugenol is also made vanillin, and the majority yearly output of eugenol is used for this purpose. To a small extent, eugenol is also used in the field of dentistry as well as being an important ingredient of the old-fashioned tooth-ache drops. Eugenol has a tendency to darken soaps and creams and can be irritating to the skin if used in too large percentages in lipstick types. But in talcs, eugenol finds its ideal use. In making a carnation for a talc it should be borne in mind that eugenol always blends well with any rose specialty or its ingredients. Let us consider the preparation of a talc perfume and how it should be combined.

For example let us start with 40 parts of eugenol and to this add 15 parts of ylang ylang or kananga oil, and about 25 parts of phenyl ethyl alcohol, 5 parts of geraniol, 3 parts of methyl isoeugenol, 10 parts of isoeugenol, one part of phenyl acetic aldehyde, 5 parts coumarin, 4 parts of vanillin, 2 parts of patchouly oil, 2 parts of pimento oil, one part of bay oil, 10 parts of musk ketone, 3 parts of otto of rose, and 2 parts of orris concrete. This combination of ingredients will definitely show how important a part the rose products play in a talc carnation, while the orris concrete, coumarin, patchouly oil, vanillin and musk ketone act as the principal fixatives.

The imported eugenols are considered to be better for this purpose than the domestic types though the imported products are more expensive. This is due to the fact that the tendency here has been to increase the yield during the final distillation instead of carrying out the close fractionation Which is so carefully controlled by the foreign manufacturers. Naturally the greater the yield or the cheaper the basic raw material, the lower the price. But in the compounding of any odor each material should receive at least the nose test before its incorporation into the finished product. Poor and cheap ingredients never make good perfumes.

Of equal importance to the perfumer is isoeugenol naturally present in ylang ylang oil and nutmeg oil. It is a yellowish crystalline solid when pure, melting at 24°-25° C., and boiling at 261° C. It is not as sharp and pungent as eugenol but is more satisfactory for oriental types and heavy type odors although small quantities can be used in lilac, lily, and locust blossom. In general, isoeugenol is of wider value to the perfumer than eugenol. Isoeugenol also blends exceedingly well with rose types and has considerable fixative value. It is less irritating to the skin than eugenol and does not discolor as readily.

The other eugenols thus far have found but a limited use although they are valuable in producing new types and shades where desired. Methyl eugenol and methyl isoeugenol are often employed for this purpose while acet isoeugenol and benzyl isoeugenol are used more as fixatives than as perfume ingredients.

The Fatty Aldehydes

The aldehydes of the fatty series play an important part in the compounding of perfume oils, especially is this true in the production of the modern types of perfumes. By their use one can obtain new and original notes, but it should be emphasized that they must be used with great care and skill in order to secure the best effects. They should preferably be used in a 5 or 10% solution in benzyl alcohol or phenyl ethyl alcohol, as in the diluted state they are more stable and are also more serviceable to the perfumer.

Aldehyde C_8—Octylic. It has an acrid and somewhat spicy odor suggesting the door of Opoponax. It is used sparingly in Rose, 0.1-0.5%, Neroli, about 0.3%, Jasmin, 0.1-0.2% and in fancy bouquets.

Aldehyde C_9—Nonylic. Its odor is mainly rosy recalling that citronellol, but more fatty with a slight orris note. It is a good fixative and is useful in Rose and Orange Flower as well as in fancy bouquets and in combination with other aldehydes. In Rose it is used to the extent of 0.1-0.3%. Minute amount in Cassie (0.02%) gives an interesting effect.

Aldehyde C_{10}—Decylic. Its odor is difficult to describe, but very fresh and sweet. It has a strong Rose character at the same time having a strong lemon or orange note. Its volatility is such that it acts as a stabilizing agent in compounds, its presence giving a constant tonality to bouquets, as long as evaporation lasts. It is almost indispensable in flowery compositions, fancy perfumes and in conjunction with citrous oils, as in modern Eau de Colognes. It is used in Rose, 0.2-0.5%; Neroli, 0.3%; Cyclamen, 0.2%; Jasmin, 0.2-0.3%; Cassie, 0.1%; Liliac, 0.05%.

Aldehyde C_{11}—Undecylenic. It has a fine rose like odor, with a fruity verbena like undertone, and imparts to compounds the waxy note found in natural flower oils. It is very useful in Rose, Tuberose, Violet, Lily of the Valley, Narcissus, Fougere, Chypre and fancy bouquet.

Adlehyde C_{12}—Lauric. This most important aldehyde has a fatty note with a light fruity character as well as a flowery note which is absolutely characteristic. It gives original effects in fancy bouquets and has also good fixing qualities. Particularly fine effects are obtained in combination with Vetiver, Methylionone, Isoeugenol, etc. It is useful for original effects in modern perfumes and in Tuberose, 0.4% Violet, 0.1-0.3%, Reseda 0.3-0.5%, Cassie 0.2% and in Gardenia, Muquet, and Lilac.

Aldehyde C_{12}—Methyl-nonylacetic, is well known and useful. It has a strong orange-amber character on a fatty ground, with an original leafy note with a flowery undertone. Especially fine effects are produced by using 0.1% in Orchidee, 0.2-0.3% in Honeysuckle, 0.02-0.04% in Sweet Pea, 0.4% in Tuberose, 0.02-0.03% in Liliac and in fancy bouquets and Eau de Colognes.

Aldehyde C_{14}—So-called. Actually it is Gamma undecalactone. Having a pronounced peach odor it is used in perfumery to give a lifting and fruity note. It can be used to alter the "green" or leafy note of a compound. Its power and tenacity are very great so that it must be used very carefully. It is useful in modern bouquets, oriental bouquets, Violet, Jasmin and especially in fruit essences.

Aldehyde C_{16}—So-called. Actually it is Ethyl methylphenylglycidate. Having an odor of strawberries it is very interesting for supplying the fruity note to compositions. It is used mainly in fruit essences.

Adehyde C_{18}—So-called. Actually it is the Lactone of oxy-nonylic acid. Also known as Cocoa aldehyde, and is little used in perfumery, but nevertheless gives an interesting and original note to a composition. It is used chiefly to give the cocoanut effect in fruit essences.

Aldehyde C_{20}—So-called Raspberry aldehyde. It has a very pronounced and strong odor of this fruit, its use in perfumery is perhaps similar to that of Gamma—undecalactone—so-called Aldehyde C_{14}.

Combinations of these aldehydes with each other and with other aromatics are useful for giving interesting and pleasing effects. Aldehyde Crr is often used in combination with methyl anthranilate. Aldehyde C_{12}—Lauric, gives an especially interesting effect which is found in some modern bouquets.

READERS'

Inquiries must be addressed department on the letterhead of firms. Inquiries from private

CREAM SHRINKAGE

We have been having a great deal of trouble with our cold cream shrinking away from the sides of the jar. It will be sincerely appreciated if you can give us information as to how to prevent this. Sydney, Australia.

Shrinkage of this character is usually due to filling at too high a temperature. It is also caused by evaporation due to defective sealing. And it may be caused by contraction in some instances when the cream contains an excessive amount of waxes, particularly paraffin. As cold cream contracts upon cooling we should advise you to fill at a temperature between 110 F. and 115, the exact point cannot be stated as this depends upon the solidification point of your cream. We should also advise you to make sure that your closures contain good liners and that they are applied tightly.

SULFONATED OILS

It will be appreciated if you can advise us as to whether it is necessary to include in a formula containing sulfonated oils a preservative and an antioxidant. Des Moines.

Sulfonated oils require neither. They will not go rancid under ordinary conditions.

CARDIALGIA

We should be obliged to you for a summary of the medicaments commonly employed in the treatment of cardialgia. Bombay, India.

Cardialgia or stomach pain does not lend itself to self medication because of the variety of causes from which such pains may come, such as hernia, ulcers, cancer, etc. The medicaments prescribed by physicians fo rappropriate manifestations, include: acetanilid, acetphenetin, antipyrine, atropine, belladonna, cannabis, creosote, bromides, ergot, nitroglycerin, phenol, menthol, strychnine, resorcinol, sodium bicarbonate, aromatic spirits of ammonia, bismuth subcarbonate, nux vomica, amidopyrine, morphine sulphate, cocaine hydrochloride, codein sulphate, etc.

STARCH CREAMS

Can you furnish us with information respecting the proper type of equipment to us in the manufacture of a starch massage cream? Chicago.

This is governed to some extent by the consistency of the finished product. For a fairly light paste we think the epicylic type mixer would be suitable. For a medium consistency paste the pony mixer type would be useful. For a heavy paste, the so-called mass mixer or kneader would be best. The epicyclic type (made by Pfaudler) consists of a vertical stirring element, which moves in eccentric circles through the batch, at the same time rotating rapidly, in a tilting type tank. The stirrer may be elevated to permit dumping the contents. The pony mixer provides a similar mixing action by means of rotating stirring paddles in a rotating tank. The stirrers can be elevated to permit removal of the tank. The mass mixer consists of a horizontal trough in which a slow moving Z type arm performs the mixing function.

EMULSIFIER

Sometime ago our attention was called to an emulsifying agent produced by oxidizing a high iodine value vegetable oil. We tried to obtain some of this material to use in a light water-in-oil emulsion which we are making and which utilizes mineral oil of relatively high viscosity in the outside phase. Have you any information in your files regarding this product? Indianapolis.

The emulsifier to which you are referring is made in Denmark under a Danish patent and we are forwarding a source of supply in a separate communication. However, we doubt very much that it will do you any good because all the work done in connection with this material has utilized vegetable oils only. It is claimed that excellent results have been obtained in the manufacture of nut butters and margarines. We suggest that it is much less difficult to make a water-in-oil emulsion of semi-solid consistency than it is to make one of liquid consistency, such as you are evidently trying to make. However, we wish you luck.

DE-COLORIZING

For some time we have been endeavoring to deodorize and to decolorize several different kinds of nut oils which we hope may find a wider use in the manufacture of pharmaceuticals. As this is a new field with us we would like to know your opinion respecting the relative merits of activated carbon and fullers earth. Philadelphia.

We believe there is some dispute regarding the merits of these two substances in the application you have in mind. We understand that used together better results are obtained than if either is used individually. If memory serves the activated carbon and fullers earth are added to the oil which is then brought to a vigorous boil. It is then allowed to stand for a day or two after which it is filtered. We believe that you will get much useful information from works on the subject of vegetable oils of which there are a number. A few trials should indicate which is best or whether it is more satisfactory to use both.

LUSTER

For quite some time we have wondered why it is that vanishing cream made with triethanolamine is more lustrous than it is when KOH is used as the emulisifier. We don't know whether this is an advantage or not but we hesitate to put the product on the market until until we are pretty sure which type is most popular. Los Angeles.

We don't wish to offer an opinion as to which type is preferred by the public. Triethanolamine creams are translucent because they absorb light whereas KOH creams reflect light. In the former case the particle structure differs from the latter in that the stearic acid does not tend to recrystallize in the form of laminae. But pearliness can be obtained with triethanolamine also; its all a question of manipulation.

CHLORAMINE

We are contemplating the manufacture of an intestinal antiseptic and it occurred to us that chlorine compounds such as chloramine would be useful in this connection. It will be considered a favor if you will let us know if you have published anything on this subject. Baltimore.

Before beginning your work on an intestinal antiseptic we suggest that you study available literature on chloramine. If we are not mistaken we think you will find that chloramine is decomposed by gastric juice, in view of which we cannot see what good it would accomplish in the intestinal tract.

SCILLAREN

Can you tell us what scillaren is used for and how it is made? We read a paper on the treatment of heart disease in which this substance is mentioned but we are not able to locate it. It occurred to us that it might be a trade name. New York.

Scillaren has an effect on the heart similar to digitalis but less persistent. It is a mixture of natural glucosides occurring in fresh squill and is obtained from the drug under high vacuum. It is a white, granular powder, very bitter in taste. The name is not a trade name.

QUESTIONS

individuals cannot be considered. This service is limited to the trade only.

LIVER EXTRACT

It will be appreciated if you can give us some advice as to how liver extracts are prepared. Kobe, Japan.

There are several ways of doing it. Edible livers, such as beef, pork, lamb, are ground with twice or three times their weight of water. The pulp is macerated for about six hours at a constant temperature of 25 C. The pulp is then heated to 80 C. with constant stirring and the liquid separated by running the mass through a filter press. The filter cakes are repeatedly washed until all water soluble matter is extracted. Then the liquid extract is concentrated to dryness under vacuum. It is important that only fresh livers which have been chilled as soon as removed from the carcasses should be used in making the extract.

SPONGINESS

We have been having a cold deal of trouble lately with our brushless shaving cream due to sponginess. It looks all right on the surface but when you dig into it it has a spongy character. If you will suggest how we can overcome this we shall be very grateful to you. New York.

Sponginess may be caused in several ways: by excessively rapid mixing, by lack of temperature control, by decomposition, by the addition of gum. When mixing is too fast air is certain to be beaten in especially after the cream has begun to set. It is suggested that you put a three-speed starting box on your present mixer. You will also get sponginess with certain formulas unless you are careful to keep the temperatures of the water and the stearic acid within five or ten degrees of each other. Decomposition occurs, (for instance when potassium carbonate is used), due to breaking down of the chemical and the liberation of gas. Gum tragacanth will cause the cream to become spongy if it is worked in carelessly.

SPECKS

We seem to be unable to filter our astringent mouth wash so that it will remain sparkling. It looks clear enough but when the bottle is held up to the light the product seems to be filled with bright little specks. We've used every type of filter. We've chilled the product before filtering as you once suggested. But after the wash has been bottled for a month or two we experience the same difficulty. St. Louis.

Taking for granted that our subscriber *has* tried *all* available filter media, we can make only one more suggestion. Wash the bottles with hot water before use. New glass sometimes contains an infinitesimal amount of free alkali, not enough to make any difference to the ordinary run of products, but sufficient to react with some astringent substances. We have known certain types of astringents to attack the glass itself, not very much of course, but enough to cause a condition such as you mention. Since reactions of this kind are rarely ever pronounced enough to cause turbidity, most manufacturers ignore it. It is only when a bottle is held up against a strong light that these bright little specks can be seen. On the other hand washing will not always help especially in the hard water regions where the wash water might leave an immeasurable amount of salts, but still enough to cause the reaction which is troubling you. Here's one way to find out whether it is the glass, the water or a slow chemical change in the product. Filter a quantity. Put some into a Pyrex laboratory flask which has first been thoroughly washed with distilled water. Stopper tightly. Put some into one of your regular bottles which has been washed with distilled water. Put some in another of your bottles washed with regular city water, and a fourth sample into an unwashed bottle. After a month examine the samples. If the Pyrex sample shows specks, the condition is undoubtedly due to a chemical change in the product. If it shows none chemical changes may be ruled out. If the sample in the bottle washed with distilled water shows no specks, the glass may be ruled out. If the sample in the bottle washed with city water shows no specks, the water may be ruled out. If the sample in the unwashed bottle shows no specks free alkali may be ruled out. Then, as a last resort you will have to study the effect of the preparation on the closure.

PUMPS

We are contemplating the purchase of some pumps and are in a quandry about the corrosion problem. Our product is a mild acid about pH 6.5. When we investigated prices we find that bronze pumps can be bought cheaply enough, but corrosion proof pumps are by comparison extremely expensive. We don't feel that we should spend so much on pumps and we are writing to ask if you have had any experience as to the effect of mild acids on bronze. Philadelphia.

Most of the pump makers supplying this trade use an acid proof bronze which should answer your problem. We think there is less danger from corrosion in a pump than there is in a tank because of the fact that the liquid passes through it in a constant stream and is not allowed to remain in contact with the metal as is the case in a tank. Corrosion is worst when there is prolonged contact and exposure to air. In a pump neither condition applies. This is especially true if you are careful to flush the pump with water after it is used. In the final analysis you can easily make a corrosion test yourself by getting a piece of the bronze from the pump makers and trying it out with your product. Stick the piece of metal into a beaker full of your products in such a way that part of it is not submerged. If it corrodes at all it will corrode first at the liquid level.

DINITROPHENOL

During the past year we have had many inquiries for dinitrophenol tablets for obesity. We have not as yet packaged this product and are wondering if you consider the market sufficient promise for us to make an effort to gain a place in it. Toledo.

At the present time it is difficult to say, just what course the market for this product will follow, but due to the extreme danger of it in self-medication, we should hesitate to recommend that the product be packaged for sale over the counter. Some physicians report excellent results with the product under proper supervision, while several deaths have been recorded even where the product was used under the direction of a member of the medical profession.

PEARLY NAIL POLISH

We have noticed popular nail polishes which impart a pearly luster to the nails. Can you tell us how to prepare such a product? Chicago.

A nail polish having a pearly finish may be prepared by the use of fish-scale essence. The preparation can be made from a lacquer base consisting of 50 grams celluloid, 500 grams amylacetate, 400 grams acetone, 40 grams alcohol, 10 grams castor oil in admixture with sufficient fish-scale essence to give the desired pearliness. The viscosity of the mixture must be regulated by the celluloid or nitrocellulose used and should be of such consistency that the fish-scale essence remains in suspension to some extent.

Peony Parento

$8.00 per lb.

Pleasant • Pervasive

Persistent

A most refreshing odor for creams and lotions. Extremely effective in face powder and dusting powders as well. For this purpose we recommend the addition of a small amount of Fixative Otto C. P. which will serve as a binder and sweetener.

Samples on request

Compagnie Parento, Inc.

Executive Offices and Laboratories

Croton-on-Hudson, N. Y.

New York
507 Fifth Avenue

Los Angeles, Calif.
R. F. Eaton
4803 Everett Ave.

Toronto, Ont.
73 Adelaide St. W.

THE COMPOUNDERS' CORNER

Silk Constituents in Cosmetic Soaps

A soap containing an appreciable amount of silk fiber is called a "silk soap." Raw silk powder, available commercially, is a gray, flaky, light powder. In some instances the use of silk manufacturing by-products has been recommended, but this procedure deprives the soap of the high absorbing power of the silk powder. The absorption and massaging power of powdered silk also influences the lathering properties of the soap, the lather becoming smoother and thicker. The skin after treatment feels as if a good skin cream had been used. The effect is comparable to an addition of colloid-kaolin which is insoluble, yet gives a creamy lather when present to the extent of 1 to 3%. Raw silk powder more readily gives this effect since under certain conditions (warm water, hydrolytic alkali, emulsification) it yields decomposition products of silk, such as sericine, which are dissolved or emulsified. In any event, raw silk powder in its original state will have only the effect of an insoluble absorbent, while a true cosmetic or medical effect upon the skin will be obtained when decomposition products of silk are used to the fullest extent.

It is better to use all the decomposition products of raw silk, (chiefly a mixture of fibroin and sericine) rather than the degummed silk alone or the gum alone (chiefly fibroin or sericine, respectively), but where price is a consideration, certain by-products from silk manufacture are useful. A good product will contain all of the original fibroin and enough of the sericine to give a satisfactory silk-soap.

Sericine or silk gum is a protein material and because of its similarity to gluten is called silk gluten. When silk is extracted with boiling water, the solution does not contain sericine but a modification product. On evaporation, the modified sericine is obtained as a colorless, tasteless, odorless powder which swells in cold water and easily dissolves in hot water. A 6% solution forms a jelly on cooling. Fibroin is similar to albumin as well as gelatin and sericine, but exhibits some different reactions.

Fibroin is a more important addition to soap than is sericine, since it is a concentrated albuminoid and has the properties of that group of compounds. Most striking is the strong lathering power of fibroin alone and when mixed with soap. It is similar in this respect to degraded casein, which as casein paste is used to improve toilet soaps.

Trial use of a silk soap prepared from silk residue obtained by alkaline hydrolysis, exhibits the properties of silk soap. Although similar in effect to albumin soaps, the silk soap has a peculiarly beneficial effect upon the skin. When used with brittle, skin for the first time, it causes the skin to shed a small amount of flakes, but further use entirely corrects the original condition. Shampoos containing silk soap give the hair a silky luster and free the scalp from all dried skin,while the soap is especially beneficial for baths. Finally,its use in skin creams and cosmetics is strongly indicated.

Silk soaps may also be combined with super-fatting agents, especially with vaseline, lecithin, lanolin and wool-tax; the result is a mild and pleasant toilet soap.

Powder for Sensitive Skins

Powders have many uses, but they can be classified, in general, as face powders, talcum and body or dusting powders. The first have esthetic-cosmetic value, since they beautify the skin, cover complexion impurities, remove oily luster, and modify coloring as desired. To a degree, the other powders do the same for the skin of the body, for although they are spread freely over the body, they seldom exert healing or preservative effects. Powders may not easily be characterized by their composition, however, since they contain both vegetable and mineral ingredients and differ substantially only in the coloring material.

Conscientious care of the skin, particularly sensitive skin, requires careful examination of powder raw materials, in order to eliminate those which are unsatisfactory. Among vegetable products are starch powders, lycopodium, orris root powders, while mineral products include talcum, kaolin, magnesium carbonate, etc. Rice starch was originally of greatest importance in the manufacture of powder, because it is a bright, white powder with very small grain size, especially suitable for removing shine from the face and absorbing moisture. Because of its power of absorbing moisture, rice starch must be oven-dried before use. Wheat starch is somewhat less useful because of its blue-white color. Potato starch is cheaper, but may be used only in the cheapest products because of its impure color.

While starch is a more or less fixed ingredient of powders, other vegetable products mentioned are now replaced to a large extent by mineral or synthetic products.

Lycopodium is an excellent slip-powder with high fat-content (50%) and does not lump. It is no longer used to any great extent, but its use in small quantities is advantageous since it increases adhesion of the powder. Orris-root powder seems to have gone out of fashion, it imparts a faint, pleasant odor of violets to the mixture, but its characteristic color makes it unsuitable for white powders. Sage and marshmallow-root powders now have only historical interest. Almond meal enjoys increased popularity, being used, however, for the bleaching and cleansing of the skin, rather than as a powder base.

All of the vegetable products have been used in face powders, but they are often detrimental to the health of the skin, for perspiration may acidify the starch and cause it to agglomerate. For this reason, powder is used in a thin layer and removed at short intervals. Mineral substances may also clog pores, but not to the same extent, since they are not affected by water. These products have the additional advantage of not being affected by bacteria nor deteriorating with time.

The chief ingredient of body powders is talcum, which is especially valuable because of its fatty feel, its large surface, and natural white color. All varieties are not equally tolerated by a sensitive skin and chemical testing of quality is recommended. The talcum should be pure white in color, with no gray tint and should feel decidedly slippery and fatty, which poorer qualities never do. Good talcum should be dull, without vitreous luster. Not more than 4% should be acid-

Formulas

	Rice Starch	*Talcum*	*Coll. Kaolin*	*Magnes. Carb.*	*Magnes. Stearate*	*Zinc Ox.*	*Vasel. of Cold Cream*	*Others*
Face Powder:								
	600	200	...	100	40	60	..	
	450	300	...	50	...	220	..	
	500	300	...	25	...	150	..	70 $T_{10}O_2$
	500	300	100	250	5	...	..	
Body Powder:								
	...	900	...	...	...	90	..	10 Salicylic acid
	...	800	...	70	20	10	..	100 boric acid
	70	850	...	...	...	...	..	60 Boric acid
	80	490	300	...	100	...	..	
Fat Powder:								
	450	350	...	60	...	...	20	20 Lycopodium
	500	300	...	...	...	150	10	
Infant Powder:								
	...	1,000	...	...	...	...	6	1 Lanolin
Foot Powder:								
	...	850	...	...	...	100	..	{10 Salicylic acid {20 Boric acid
	...	800	...	...	...	200	..	100 Boric acid
	...	750	...	...	...	200	..	350 Kieselguhr
	...	600	...	...	...	...	..	{10 Thymol {0.1 Formaldehyde

soluble, or else perfumes may be attacked and the powder become discolored. Talcum is often finely dispersed with salve bases (cholesterin-containing) and vaseline or cold cream added so that the powder develops skin-regenerating properties. These powders are soft and creamy and adhere extremely well as a flexible layer, protecting the skin from chafing, reddening and drying.

Various newly-prepared raw materials have obviously valuable advantages in the manufacture of body powders. Increased demand for adhesion and freedom from irritation is answered by an extraordinarily voluminous fluorsilicic acid hydrogel. Per gram, it has a surface of 150 square meters and 20 to 25 liters weigh only 1 kg., corresponding to a specific gravity one-twentieth that of water. The powder is actually impalpable. The great surface and extreme lightness lead to extraordinary adhesion, shown by almost no other powder base. Colloidal kaolin is also a useful supplement to the mineral powder ingredients. When an electric current is passed through a suspension of raw materials in a weakly alkaline bath, the fine colloidal particles gather at the anode, while the large impurities sink to the bottom or pass to the cathode. The granules of the finely dispersed kaolin are no larger than bacteria, average length being 2 microns. Kieselguhr or infusorial earth is also an important addition to body powders, it is characterized by extremely high moisture-absorbant power and low heat conductivity. It is used repeatedly and advantageously in foot powders, along with talcum and various pharmaceutical additions, such as menthol, thymol, formaldehyde, etc., whose effect is strengthened and made more lasting. Magnesium carbonate is another ingredient, used chiefly in face powders. In precipitated form it is a very light, snow-white powder which is used only in small quantity, since it lessens the adhesion of the powder.

Calcium carbonate and gypsum are not generally used in body and face powders apart from the necessity of using the latter in compact powders. Barium carbonate and other harmful materials should never be used.

Metallic stearates are organic and mineral compounds now being used to a large extent. They are white, average light substances, not easily wet by water, with a fatty feel.

Covering power may be increased by the use of zinc or titanium oxides.

When pure ingredients are used, the powder is pure white; the use of ultramarine to neutralize off-colors is only slightly helpful. Only face powders are colored, and to accomplish this, use is made of both aniline lakes and mineral pigments. Red tones are given by carmine eosine and rhodamine, while sienna and umber give shades of brown and yellow.

Pectin in Cosmetics

Emulsifiers and jelly producing substances are most important in cosmetics; among the former are agar-agar, quince seed, tragacanth and carragneen. The latter includes gum arabic as well as alkali salts of fatty acids (soaps) which take up much water, and are easily absorbed by the skin, serving as the base of a group of cosmetic preparations.

Pectin combines both functions. It is a hemi-cellulose of very complicated chemical structure which causes jelling of fruit juices. The best known pectins are those from citrus fruits and apples. Aqueous solutions of citrus pectin are light in color, while those from apple pectin are yellow to light brown. The solutions are essentially identical in action, so that choice is based upon the price and color of the finished product. There are three varieties of commercial pectin: (1) hydrolytic pectin, also acid-free; (2) free pectin, cold process—highest jelling power; (3) dry pectin.

Pectin easily forms emulsions and jellies, but these are unfortunately sensitive to alkalies; pectin combinations should not be heated above water bath temperatures. These combinations, however, are particularly suitable for use in tooth pastes; skin oil and liquid skin cream emulsions; hair dressings, such as bandolines and brilliantines; skin creams.

The following is the general procedure for preparing pectin products: (1) use a pectin extract or an acid-free pectin extract; (2) use dry pectin for greater concentrations; (3) moisten dry pectin in the mortar with a little alcohol. Rub this moistened pectin with a little water (containing citric or tartaric acid if desired) to a fine slime. If the directions call for glycerin, add it to the mixture. The pectin swells greatly. Now heat gently the remaining water required and add it in small portions to the pectin mucilage. Finally heat the solution on a water bath, avoiding high temperatures and preventing the pectin from lumping. For the finished product use inert containers, which are not affected by pectin and acids.

Suitable tooth paste formulas are the following: A. 1. Colloidal base "P": 10.0 tragacanth, 300.0 neutral pectin extract, 32.0 dry pectin, 300.0 glycerine, 358.0 distilled water. A. 2. Paste: 310.0 colloidal base "P", 370.0 titanium dioxide, 220.0 pepsin, 40.0 diethylaminoethyloleyl lactate, 40.0 glycerine, 20.0 tooth paste perfume. B. 2. Paste: 500.0 colloidal base "P", 200.0 titanium dioxide, 260.0 calcium phosphate, 20.0 diethylaminoethyloleyl amide acetate, 20.0 tooth paste perfume. C. Toothpaste perfume: 660.001. Menth. pip. Mitcham, 131.0 01. anis. stallat., 4.0 01. Neroli antif., 4.0 01. Caryophyll., 3.0 vanillin, 198.0 menthol.

A good bandoline contains 30.0 acid-free pectin extract, 4.0 drypectin, 300.0 glycerine, 1.0 tragacanth, 660.5 rose-water, 1.5 preservative and 3.0 perfume.

Skin cream can be made according to the following formula: 100.0 pectin extract, 9.0 dry pectin, 25.0 glycerine, 300.0 96% alcohol, 10.0 citric acid, 553.0 rose water and 3.0 cream perfume.

Finally, the following cream contains a vitamin preparation with pectin as a protective colloid: 275.0 anhydrous eulestol, 18.0 synthetic wool-fat, 23.0 arnica solution in water (1.10), 23.0 witch hazel water, 460.0 rose water, 4.0 olive oil, 18.0 glycerine, 73.0 vaseline, 100.0 acid-free pectin solution, 3.0 dry pectin and 3.0 perfume. Melt the eulestol, wool-fat and oil on the water-bath. At the same time, according to the general directions, make up a pectin solution and add the arnica and witch hazel. Add the aqueous solution to the oily mixture, stirring well, and when the cream is cold, add perfume and vaseline. For thorough homogenizing, treat the finished cream in a rolling machine.

Cream Admixtures in Soap

Soaps with medicinal or cosmetic additions enjoy great popularity. Of primary importance are superfatting additions which have been added to hard soaps for a long time; examples are lanolin, vaseline and cold-cream soaps. Unfortunately, many soaps with these distinguishing names do not deserve them, since the addition is very small. The soap should contain about 5% of the active ingredient, but the limits cannot be made too rigid, since some compounds are active in 2% concentration, while others must be present to the extent of 10%.

Bergamot Oil As An Insecticide

In an effort to discover additional outlets for Italian bergamot oil, its disinfecting powers were investigated. Against tubercle bacilli it is as powerful as phenol and a new disinfectant based upon bergamot is now being manufactured. Insectide properties were also examined and a new preparation destroys all insects in a closed room. The use of this essence is advantageous in that the atmosphere is perfumed after use and is not contaminated with the usual penetrating odors. Moreover, dishes may be sprayed without harm.

Masking the Odor of Ichthyol

It is almost impossible to completely cover the odor of Ichthyol in salves unless large amounts of perfume materials are used, however, the following products either overcome the objectionable odor or blend with it to form a more pleasant odor that they may preferably be used: Vanillin, Coumarin, Safrol, Aubepine, Camphor, Hydroxycitronellal, the so-called Aldehydes C_{14} and C_{16}, Peppermint, Anise, Terpineol, Benzaldehyde, Patchouli, Citronellol, Menthol, Methyl benzoate, Sandalwood, Benzyl acetate, and combinations of these.

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ALCOHOL NEWS

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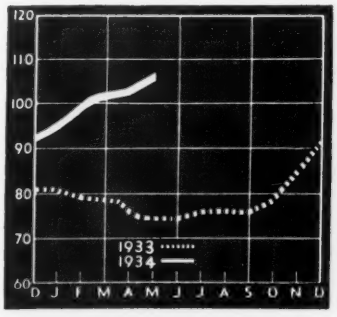
ETHYL ALCOHOL PRODUCTION



(moving twelve-month averages, 1931=100)

			1934	1933
PRODUCTION				
1000 proof gals.	Jan.-May		66,088	41,487
	May		13,478	9,149
	April		12,731	9,011
SALES				
1000 proof gals.	Jan.-May		55,518	38,138
	May		11,685	9,044
	April		9,946	6,667

MAY ALCOHOL SALES ABOVE '31 AVERAGE; PRODUCTION AGAIN UP

May figures for both sales and production of ethyl alcohol continued their sharp upward trend which has been maintained since September 1933. Sales for May broke through the 1931 average of 100 to reach a figure of 101.5 compared with 99.5 for April, and the index number for production advanced to 107.5 for May from the April figure of 104.6. At the present time, both production and sales are approximately 50 per cent. above the comparable statistics for last year.

The increase in the spread between the figures for sales and production does not necessarily indicate that the supply of alcohol is more than temporarily getting ahead of the demand, as production is usually stepped up at this time of year to prepare for heavy withdrawals of completely denatured alcohol for anti-freeze.

COMMERCE DEPARTMENT RELEASES NEW WORLD CHEMICAL SURVEY

A world survey of chemical and allied products developments, entitled "WORLD CHEMICAL DEVELOPMENTS IN 1933 AND EARLY 1934", has just been released by the Commerce Department, according to advices from C. C. Concannon. Chief of the Commerce Department's Chemical Division. This booklet covers 27 countries and is prepared in large part from materials supplied by Consuls and Trade Commissioners stationed in the countries dealt with. The full range of chemicals, dyes, drugs, proprietary medicines, toiletries, paints, fertilizers, and allied products is covered in the bulletin.

This booklet which consists of 94 pages, may be obtained from the Superintendent of Documents, Washington, D. C., or from any of the Bureau of Foreign and Domestic Commerce District Offices, located in principal cities throughout the country at a charge of 10 cents per copy.

LOW SURFACE TENSION MOST DESIRED IN ACTION OF COSMETICS

The effectiveness of many toilet preparations and antiseptics depends to a large extent upon a low surface tension, according to a leading cosmetic chemist. Surface tension is the force which causes the molecules at the surface of a liquid to draw together. Roughly, it can be compared to a weak or strong surface film.

Now, when a liquid is applied, to the skin for cosmetic or antiseptic effect, it should come into intimate contact with the entire surface and penetrate the pores deeply. Too high a surface tension prevents this action. The solvents used in the cosmetic industry vary considerably in this important property, but are rarely measured accurately for surface tension. This can be done, however, easily and quickly with a tensiometer.

The surface tensions of several of the generally used solvents at approximately room temperature are:

Solvent	Dynes per cm.
Ether	16.8
Ethyl Alcohol	21.7
Methyl Alcohol	23.0
Acetone	23.3
Turpentine	27.1
Benzene	29.4
Olive Oil	33.5
Glycerine, Pure	65.2
Water	72.8

From the above table it will be seen that ether and ethyl alcohol have the lowest surface tensions. This is one of the reasons alcohol is so widely used as a solvent in the manufacture of cosmetic creams and lotions.

IODINE SOLUTION FOR ANTISEPSIS TO BE INCLUDED IN NEXT U. S. P.

A new iodine solution has been adopted for inclusion in the forthcoming revision of the United States Pharmacopoeia to provide a preparation which shall be used specifically for antisepsis.

Iodine has long been used externally as a counter-irritant. However, the difficulty involved in the use of the official preparations is due to the fact that being intended primarily as counter-irritants, they are therapeutically contra-indicated for wound treatment, and when used for antiseptic purposes, their irritating properties prejudice users against iodine preparations for everyday use for antisepsis.

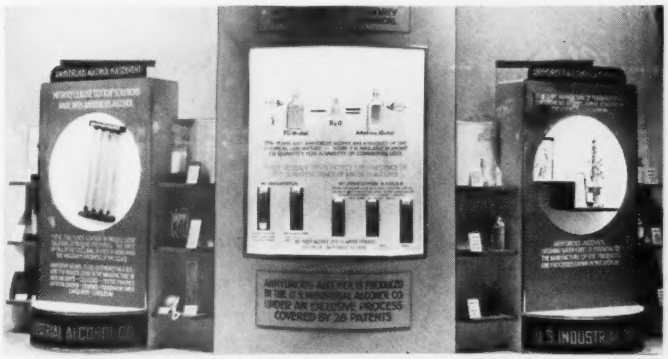
The formula for the new preparation is as follows:

Iodine	20 gm.
Potassium iodide	24 gm.
Diluted alcohol U.S.P. q.s. to make	1000 cc.

In determining the strength of this preparation preliminary bactericidal study of various strengths of iodine was made. A two per cent. solution was found to answer all practical purposes when compared with both other strength iodine solutions and also with popularly used commercial antiseptics.

Also, after a close and careful examination of many various solvents from the standpoints of irritation, penetration and stability, ethyl alcohol was found to be the most satisfactory solvent for iodine providing optimum conditions in respect to these factors.

CHEMICAL AND SOLVENT USES OF ANHYDROUS ALCOHOL SHOWN IN EXHIBIT



Some of the outstanding solvent and chemical properties of Anhydrous Alcohol are graphically displayed in the Educational Exhibit of the U. S. Industrial Alcohol Co., maintained on 42nd Street, New York City.

The center panel of the display explains the nature of Anhydrous (water-free) Alcohol and states that the removal of the 5 per cent. of water in ordinary alcohol gives it unusual solvent and chemical properties. Delicate tests used to detect the presence of a slight amount of water in alcohol are also illustrated.

The solvent properties of anhydrous alcohol for nitrocellulose, oils and resins are shown in the left hand panel. Considerable attention is attracted by the four glass tubes mounted in the circle on this side. They are filled with A. S. nitrocellulose solutions of varying viscosities and each contains a steel ball. The tubes are rotated and the balls drop with varying speeds. Everyday products in which anhydrous alcohol is employed as a solvent in their manufacture, including airplane dopes, celluloid, textile finishes, artificial leather, special cements, transparent paper, lacquer and linoleum, are illustrated.

The chemical uses of anhydrous alcohol in the laboratory and in commercial manufacture are displayed on the right hand side. A mounted cross-section of a human brain illustrates the use of anhydrous alcohol in preserving and dehydrating, cutting sections for microscopical work. Some of the commercial processes dependent on anhydrous alcohol as a chemical shown, include: manufacture of Phenobarbital—an important hypnotic and sedative; extraction of Antigen from dried beef-heart; in the manufacture of fine chemicals; in the preparation of certain dyes and stains; and in the manufacture of SUPER PYRO, U.S.I.A's. anhydrous automobile anti-freeze.

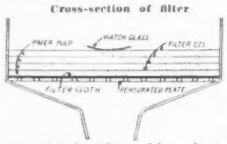
Published Monthly by the U. S. Industrial Alcohol Co.

FRUIT JUICE FILTRATION METHOD FOR GENERAL LABORATORY USE

The Research Laboratory of the California Fruit Growers Exchange developed a method for the large-scale laboratory filtration of fruit juices which has been successfully applied to a variety of products, such as pectin solutions, tannin extracts and aqueous extracts of plant material.

The filter consists of alternate layers of paper pulp and diatomaceous earth, resting upon a piece of muslin at the bottom of a Buchner funnel. Layers may be removed successively when the filter tends to clog.

Cross-section of filter



The liquid to be filtered is agitated with an appropriate amount of "filter aid." In order not to disturb the mat when pouring the mixture onto the filter, it is recommended to place a watch crystal in the center and to pour upon it. Filtration is begun with only as much vacuum as is required to maintain a flow through the mat. Suction is increased gradually as the mat clogs.

Extremely clear filtrates, and a relatively rapid rate of filtration, are claimed for the method.

COD LIVER OIL AS A THERAPEUTIC

Cod liver oil is reported to have definite therapeutic qualities. The report, published as the result of three years experimental work with cod liver oil as a dressing for wounds, states that the oil when combined with other fats to make a semi-solid ointment, appears to speed up the healing of wounds.

Whether or not there is any connection between these results and the high concentration of vitamins A and D is not known although it is considered a possibility.

N.Y. STATE ALCOHOL PERMITS

Regulations have been issued by the New York State Liquor Authority regarding the issuance of permits as provided for in Section 91 and Section 92 of the Alcoholic Beverage Control Law (Chapter 478 of the Laws of 1934).

Applications for the *industrial alcohol permit* as provided for in Section 91 of this Law should be made on Form 102 (1934). Applications for the *alcohol permit* as provided for in Section 92 should be made on Form 103 (1934).

UNUSUAL ALCOHOL DERIVED CHEMICALS

This is the second of a series of articles on some of the more unusual chemicals manufactured by the U. S. Industrial Chemical Co., Inc., using alcohol as the basic raw material.

Diethyl Oxalate

Diethyl Oxalate is an important alcohol-derived chemical produced by the conventional esterfication process using ethyl alcohol and oxalic acid with subsequent purification to the final quality by special equipment and technique. It is capable of use in many directions and at present enters into the three following major fields of application:

1. **As a dye intermediate** for conversion into sodium ethyl oxalacetate (also produced and sold by the U. S. I. C.) which is used in the manufacture of Tartrazine dyes.

2. **As a raw material in the manufacture of pharmaceuticals,** particularly Phenobarbital, a hypnotic and sedative, and other barbituric acid derivatives.

3. **As a constituent of nitrocellulose lacquers** in which Diethyl Oxalate finds application because of its very satisfactory solvent power, high boiling point and mild odor. Because of its relatively high price as a solvent, use in this field is limited to special applications, as, for example, in the radio tube industry where it is employed in the manufacture of special lacquers used to fix the rare earth salts to the cathode.

In addition to the above specific applications, Diethyl Oxalate lends itself readily to synthesis and it may, therefore, be anticipated that many additional diversified uses will be found for the product in the future.

Recent scientific investigations conducted in the Research Laboratory of the U. S. Industrial Chemical Co., Inc., have resulted in a number of important improvements in the process for the manufacture of Diethyl Oxalate; affecting both the quality and the production cost of this chemical.

These improvements have yielded a Diethyl Oxalate of unusually high quality. The high boiling impurities have been eliminated, giving a product of narrow distillation range; the acidity has been reduced; the stability of the product substantially improved; and the purity increased from 97% to over 99% ester content.

As a result of cost reduction effected through research, U.S.I. is now in a position to offer Diethyl Oxalate at a price which is expected to stimulate interest in the product for use in many new fields of chemical manufacture.

TECHNICAL DEVELOPMENTS

Eau de Cologne, formerly prepared by the distillation of plants, balsams and seeds now consists simply of alcoholic solutions of certain essential oils, often diluted with infusions of gums or balsams. The principal essential oils are bermagot, lemon, sweet orange, petitgrain, with neroli and small quantities of therapeutic oils such as lavender, rosemary and verbena. Infusions of benzoin, ambergris and labdanum serve as fixatives.

U S I

A synthetic surgical suture has been patented which comprises a thread of absorbable animal tissue such as that of bovine ligamentum nuchae in its original chemical state homogenously distributed through a cellulose base material such as regenerated cellulose.

U S I

A new medicated dressing, ready to put on, comes in the form of a soft cotton pad which is said to mold itself to the shape of whatever part of the body it is applied. It may be used for either wet or dry dressings, requires no adhesive plaster and is easy to remove.

U S I

A new, acid-resisting coating material can be spread or brushed on wood, metal, linoleum and other surfaces. It is said to show remarkable resistance to ammonia, caustic solutions, acids and other chemicals, and to retain its high gloss under severe exposure conditions.

U S I

Benzene-rubber solutions according to a recent patent, are rendered capable of being sprayed by diluting them to the approximate viscosity of water by the addition of benzene, benzol, or the like, and adding protective colloids or emulsifying agents such as soaps, mineral or vegetable oils, or fats. Example: a mix consisting of 55 parts of rubber, 35 parts of zinc oxide, 3 parts of sulphur, 1.5 parts of an accelerator, and 5.5 parts of an oil is dissolved in 4 to 5 times its weight of solvent.

U S I

Phenolic antioxidants such as di- and tri-hydric phenols or their derivatives, may be used in small amounts to preserve vitamins in food or pharmaceutical products from loss of potency, according to a recently issued U. S. Patent.

U S I

A new dental preparation, said to have cleansing, preserving and hardening properties for teeth and gums, has recently been patented. Its chief ingredients are bentonite and magnesium oxide. Other ingredients are sodium fluoride, sodium phosphate, soap powder, oil of eucalyptus, gum camphor and benzoin.

U S I

Di-chlor-sulphamino benzoate of soda is described as a cosmetic antiseptic and is offered for use in cosmetics, tooth pastes, gargles, etc. It is said to have a phenol coefficient of 45 and a chlorine content of 20 per cent.

U S I

Anhydrous alcohol production in France has increased tremendously due to the success of its use with gasoline as a motor fuel. The number of plants, producing alcohol increased from 7 in 1926 to 100 in 1933 and the output increased from 11,000,000 to 99,000,000 gallons in the same period.

U S I

Color is the only perceptible difference in comparisons of apple and citrus pectins, the former having a slightly darker tone. Because pectins are graded according to their jellying strength, comparisons must be made between samples of the same grade.

U.S. INDUSTRIAL ALCOHOL CO.

WORLD'S LARGEST PRODUCERS OF INDUSTRIAL ALCOHOL

ETHYL ALCOHOL

SPECIALLY DENATURED-*All Formulas* • COMPLETELY DENATURED-*All Formulas* • ANHYDROUS-*Denatured* • ABSOLUTE-*Pure*

SOLOX-*The General Solvent* • PYRO-*The Standard Anti-Freeze*

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NEWS

Companies

Brooks Returns to Coty

Now that Benjamin E. Levy has returned to Coty, Inc., as Chairman of the Board of Directors, changes are taking place in the executive set-up of the company. Mr. Levy is in full charge of the company and, although no official announcements have been forthcoming, it is known that Herman L. Brooks, re-

H. L. BROOKS

cently sales manager of Houbigant has returned to Coty. Mr. Brooks served as sales manager of Coty under Mr. Levy's former regime, but is now understood to occupy a position of wider scope such as vice-president and general manager. Rosenthal is understood to have resigned his position with Marie Earle, a Coty subsidiary. No announcement as to a successor to Mr. Brooks has been made by Houbigant.

Paris Medicine Changes Name

The Paris Medicine Co. of St. Louis, Mo., has announced a change in name to Grove Laboratories, Inc.

The change is made simply to better identify the activities of the company. The company in the last two years has been actively pursuing as a policy the development of new products and it feels that the new name is more accurately descriptive.

No change in ownership or management is involved.

Marallen Products Buys Lusterite

Marallen Products Co., Brooklyn, which was formed a few years ago by E. Raymond and S. Chameides, has acquired full control of the Lustrite Corp. Both companies specialize in manicure preparations.

Anchor Cap Buys Salem Glass

Anchor Cap Corp. is planning an increase in stock in connection with the acquisition of the Salem Glass Works, at Salem, N. J., which would more than double the production and sales of glass container subsidiaries and thus enable the corporation to bring its glass container production and sales more in balance with its cap business.

Gibson-Howell Reorganization

Gibson-Howell Co., Jersey City, has taken steps to reorganize under provision of the new Federal bankruptcy regulations. John G. Waltzen, president of the company, and Abraham Strauss, secretary, have been appointed trustees in receivership. According to the petition filed, the company has assets of $278,802 and liabilities of $174,121.

Sterling Buys Watkins

Sterling Products, Inc., is said to be nearing completion of negotiations for the purchase of the R. J. Watkins Co., Newark, N. J., manufacturers of Mulsified Cocoanut Oil Shampoo, Glostora, and Dr. Lyons Tooth Powder. The deal is said to be an all cash transaction.

Bristol-Myers Buys Rubberset

Bristol-Myers Co. announces the purchase for cash of the entire outstanding capital stock of the Rubber and Celluloid Products Co. This company together with its subsidiaries, Rubberset Co. of New York and Rubberset Co. Ltd., of

H. P. BRISTOL

Canada, is one of the oldest and largest manufacturers of shaving toilet and other brushes.

The company was originally founded by Andrew Albright and incorporated in 1874 by special act of the New Jersey Legislature. It has two factories one in Newark, New Jersey, and one in Gravenhurst, Canada.

New Products

NEMBUTAL AND EPHEDRINE

Abbott Laboratories, North Chicago, has announced a new product for the relief of hay fever or asthma. It is "Nembutal and Ephedrine," supplied in capsule form and containing Nembutal ⅜ gr. and Ephedrine ⅜ gr.

STAFFORD-MILLER TOOTH POWDER

Stafford-Miller Co., Brooklyn, is planning to market a new tooth powder.

T-LAX

T-Lax Products Co., Bessemer, Ala., has introduced a new product under that name, retailing at 10 cents per package.

FOUR MAGNO OINTMENTS

Magno Laboratories, Providence, R. I., is offering four new ointments: Magno-Scalp for dandruff; Magno-Skin for pimples; Magno-Pile for piles; and Magno-Corn for corns and bunions. The products are marketed in 6 dram jars at 50 cents each.

DEMOTT SHAMPOO

DeMott Cosmetic Company, New York, is offering a new sulfur shampoo, an effervescent bath salt, and a beauty mask.

Lilly Buys in Kansas City

Eli Lilly & Co. has purchased an eight-story and basement building in Kansas City to house its Southwestern branch. The new building is located at 817 Broadway and provides a total of 60,000 square feet of floor space. Dale Ruedig is sales manager of that district and R. F. Spooner, branch superintendent.

Plant Sues Phillips

Plant Products Co., of Cleveland, has instituted suit in New York State against The Chas. H. Phillips Chemical Co., claiming that the Phillips company is infringing U. S. Patent No. 1,694,341 covering the manufacture of Milk of Magnesia wafers. Further, the Plant concern has notified wholesalers regarding the suit and informing the wholesalers that they might be liable if they sell the wafers in violation of the patent rights. The Plant company claims to have the exclusive right to manufacture Milk of Magnesia in tablet form. They offer to supply the wholesalers with their own product.

Answering this letter to wholesalers, the Phillips company has notified wholesalers that the claim of the Plant concern is invalid and that the Phillips company will protect the wholesalers against all liability for infringement.

Hipan Laboratories

Hipan Laboratories, Akron, O., has been incorporated by L. Brast, W. C. Wheeler, Jr., and A. B. Olmore.

NEUTRAL POWDERED SOAPS AND LABORATORY CONTROL

Most soaps are made strictly on a quantity production basis. The soap maker's skill is largely the art of switching various oils (raw materials) so as to take advantage of the most economical ingredients which will produce nearly constant physical characteristics, such as lathering value.

Practically all such soaps are good for ordinary soap requirements, but obviously such soap making procedure is highly unsafe for the buyer who must have absolute uniformity of quality and chemical constants.

For the production of fine Neutral Soap, the same grade and kind of raw materials is essential. Even this does not suffice, for no matter how skilled or conscientious the soap maker may be, he must fail on the character of product you need, if careful chemical control does not supervise production from the selection of raw materials to the final tests on the pulverized product.

That is one of the secrets of success of POWCO BRAND—Laboratory Controlled—Neutral Powdered Soaps.

Send for samples and compare.

QUINCE SEED PRODUCTION FAILURES

Do you know why bored (insect infested), crushed, dirty, or mouldy quince seed is a prolific cause of discolored finished products?

Do you know why polished or brightly colored quince seed almost always gives you low mucilaginous results?

Buy Tested Persian Quince Seed. Avoid mixtures of good and bad seed. Get a laboratory controlled mucilaginous content which means easily checked dollars and cents saved.

Equally important, get that clean, clear solution after extraction of mucilage, which makes the finest preparation without risk of failures.

Our laboratory control is a guarantee which many leading cosmetic manufacturers find a substantial saving in money, and a medium to efficient production.

Let us send you a sample with which to make critical comparative tests for color of solution and high uniform mucilaginous content, and our simple method for testing quality and value.

JOHN POWELL & CO., Inc.
114 East 32nd Street, New York, N. Y.

Filma-Seal Patent Granted

Ferdinand Gutmann & Co. Brooklyn, N. Y. have announced to the trade that the United States Patent Office has granted them the U. S. Letters Patents, No. 1,916,977 and No. 1,966,273 which fully cover each and every type of "Filma-Seal." This seal has had wide acceptance by many nationally known concerns for packaging of drugs, pharmaceuticals, household remedies, cosmetics, perfumes, etc., etc. They claim the seal to be the tightest ever offered and that one style, Type J—is a complete guard against the counterfeiting of packages.

Pfaudler Appoints Grieve

The Pfaudler Co., Rochester, N. Y., has announced the appointment of Harold J. Grieve as representative in the Pittsburgh territory. He has been with the company for over ten years, a considerable portion of which time he has served as field engineer. Prior to 1929, he represented the company in that same territory.

Hush Company in N. Y.

Hush Co., Philadelphia, announces the opening of a New York office with A. Guzman as manager. It is located at 55 West 42 st.

The company is now represented on the Pacific Coast by Herb Verdi, San Francisco; in Michigan by H. N. Crisp; and in the mid-West by Neil Brokerage Co.

Read Drug & Chemical Subsidiary

Read Drug & Chemical Company, Baltimore, has incorporated a subsidiary, Phenecide, Inc., to deal in drugs, medicines, and related commodities. The new corporation is capitalized with 500 shares of common stock of a par value of $10. Its offices will be in those of the parent company.

Dandee Hair Preparations

Dandee Manufacturing Co., Jackson, Mich., maker of hair preparations, plans to introduce a complete line of cosmetics. C. E. Mann is president.

Turner Pharmacal Co. Formed

Turner Pharmacal Co. has been chartered at Miami to manufacture drugs with an authorized capital of 100 shares of $100 par value each. Incorporators are George M. Thompson, J. G. Thompson, and T. A. Whiteside.

Venida Acquires Plant

Venida Co., Inc., has acquired the Shamokin, Pa., plant of Cellulose Products Corp., which will be used for the manufacture of Venida cleansing tissues and other products.

Ozego Medicine Co. Formed

Ozego Medicine Co., 1910 Carondelet st., New Orleans, has been organized to manufacture Ozego Skin Ointment. Twenty-eight branches are to be established throughout the country. Dr. D. Whitehurst is president.

District Wholesale Drug Co.

District Wholesale Drug Corp. has been incorporated in Maryland at 1016 Munsey Building, Baltimore.

Upjohn To Build

The Upjohn Company, Kalamazoo, Mich., will shortly start construction of three new buildings to cost $475,000. The buildings will be a three story office building 208 by 54 feet; a six story factory building 250 by 71 feet; and a steam plant.

Derby Products

Oscar F. Jackson, Lansing, Mich., who recently received a court order preventing further use of the name, Derby, on medicinal products has announced that he continue manufacture of Dr. Derby's prescriptions under the firm name of Derby Medical Products. The decision in Mr. Jackson's favor marks the end of six years litigation among officers and stockholders of the old company. Mr. Jackson plans to revise the business along modern lines. Literature and labels have been revised and redesigned.

Drug Package, Inc.

Drug Package, Inc., is the new name which the St. Louis Label Works has selected as a means of better illustrating the character of the firm after fifty years of serving the drug trade. No change has been made in the executive branch of the business except in the sales division of the business where George B. McVay, Jr. has been made a vice-president and placed in charge of sales. C. E. Prahman will be in charge of sales promotion and merchandising, and an addition of 21 field representatives has been made to the sales force.

New York office and warehouse of the firm will be located at 29 East 21 st. in charge of T. L. Edwards. A quarter of a million dollars is being spent in new equipment, additions to inventory and promotional work. A volume of a million dollars a year is anticipated immediately.

Officers of the firm are: E. W. Brommelsiek, president and treasurer; D. W. Currie and George McVay, Jr., vice-presidents; and H. C. Prevallet, secretary.

Major Drug Stores

Major Drug Stores has been organized in Los Angeles by E. L. Carney, director of sales for the McKesson Western Wholesale Drug Co., Ltd.

Pepsodent's Pectin

Pepsodent Co. has established a wholly-owned subsidiary, Kwik-Set, Inc., which manufactures and markets pectin, manufactured from citrus fruits, through the grocery trade.

Established in Seattle

McIlroy Co., 2230 First ave., West; Duzit Laboratories, 400 Shafer building; Beaudin's, Savoy Hotel; Kismet Cosmetic Co., 2127 Western ave.; and Maid-o-Kelp Co., 116 Elliott ave., West; are new cosmetic manufacturers who have established in Seattle, Washington, during the past year, according to the Manufacturers' Association of Washington.

A. M. A. Accepts

CARBARSONE

Carbarsone, manufactured by Eli Lilly & Co. The N-carbamyl derivative of (p) arsanilic acid, containing from 28.1 to 28.8 per cent of arsenic. No U. S. Patent. "Carbasone" is a registered U. S. trademark but the firm disclaims proprietary rights to the name. Proposed for the treatment of intestinal amebiasis.

DIODRAST

Diodrast, manufactured by Winthrop Chemical Co. Contains approximately 49.8 per cent of iodine and is proposed as a contrast agent for intravenous urography.

CAROTENE-SMACO

Carotene-Smaco, Smaco Carotene in Oil, Smaco Carotene with Vitamin D Concentrate in Oil, Smaco Carotene and Vitamin D Concentrate in Cod Liver Oil, Smaco Vitamin D Concentrate in Oil, all manufactured by the S. M. A. Corp., Cleveland.

Removals

STANLEY LOWEN

Stanley Lowen, New York representative of the Schults-Illinois-Star Co. and the Sefton National Fibre Can Co., has announced his removal to 50 East 42 st., that city. Telephone MUrray Hill 2-3860.

ABBOTT LABORATORIES (N. Y.)

Abbott Laboratories, North Chicago, has leased as new quarters for its New York branch 11,000 square feet in the Sixteenth street and Ninth avenue corner of the Port Authority Commerce building that city.

JOSEPH MILLER

Joseph Miller, cosmetics, has leased space at 69 West 23 st., New York.

SAGAMOR METAL GOODS CORP.

Sagamor Metal Goods Corp. has announced its removal to 43-01 22 st., Long Island City, N. Y.

BENZOATE OF SODA
BENZOIC ACID BENZYL CHLORIDE
BENZALDEHYDE

Salicylic Acid
Acetyl Salicylic Acid
Sodium Salicylate
Methyl Salicylate
Minor Salicylates

Formaldehyde
Para Formaldehyde
Hexamethylenetetramine
Glycerophosphates
Bromides

Silver Salts
Creosote
Creosote Carbonate
Guaiacol
Guaiacol Carbonate
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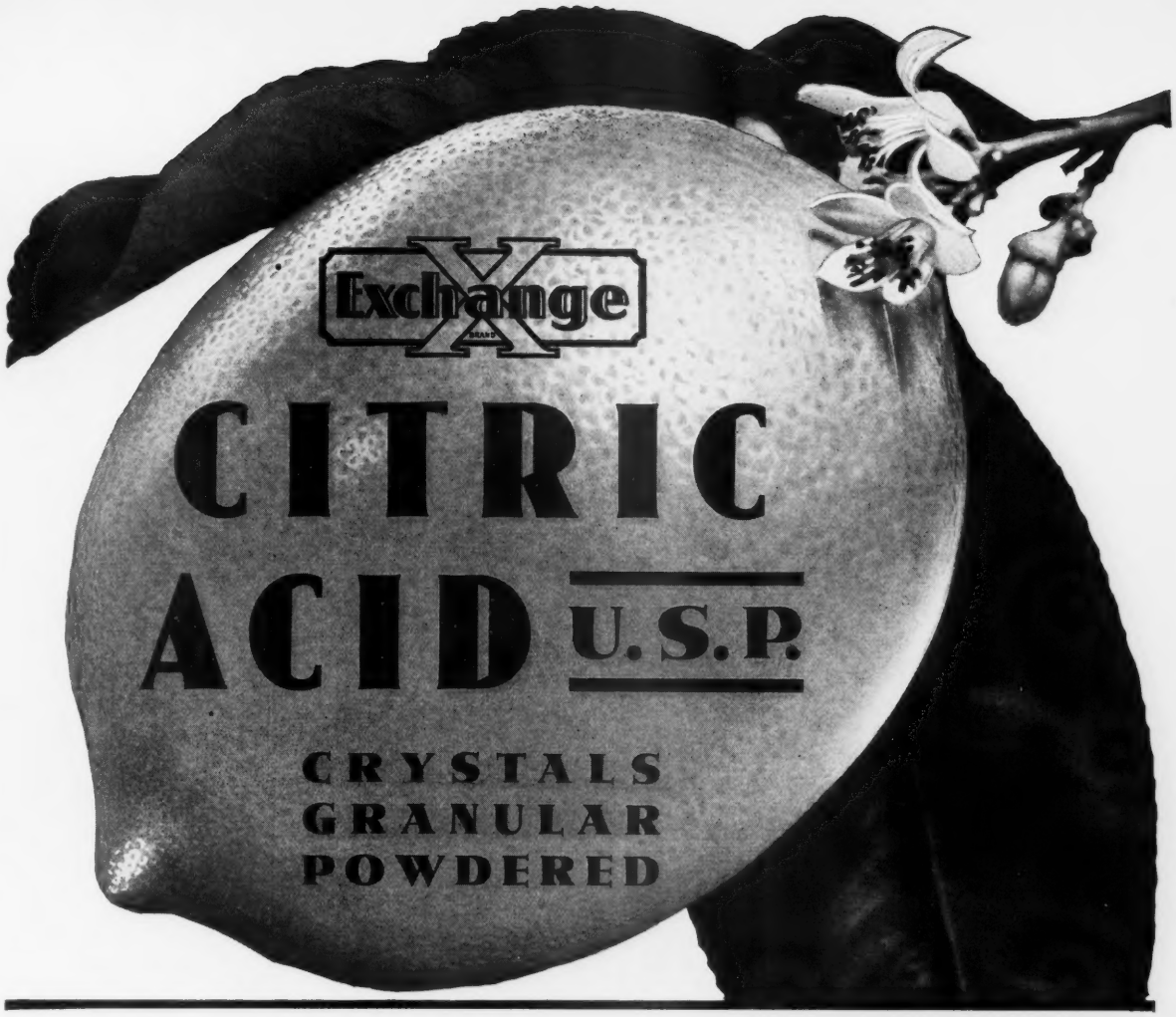

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by the Exchange Lemon Products Company of Corona, California. Backed by the Sunkist group of 13,200 citrus growers—largest in the world.

Immediate shipments from warehouse stocks in New York, Chicago and Philadelphia. For prices on kegs, barrels or carloads, consult any of the following distributors:

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SWANN CHEMICAL COMPANY, Birmingham, Alabama.
THE HARSHAW CHEMICAL COMPANY, Cleveland, Ohio.
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PACIFIC COAST SERVED BY

Products Department—CALIFORNIA FRUIT GROWERS EXCHANGE, Ontario, California

IN THE LAST ANALYSIS, THE SALES OF YOUR PRODUCT HINGE ON THE QUALITY OF ITS

BASIC INGREDIENTS

Almond Meal
Balsam Tolu
Benzoin Gum
Chalk (precipitated)
Chinese Shavings
Cuttle Fish Bone
FACTOLAC
Gum Arabic
Gum Tragacanth
HENNA
Henasoap Shampoo
Indian Gum (Karaya)
Talcum
Irish Moss
Lavender Flowers
Olibanum
Orris Root
Powdered White Soap

HOPKINS' NEUTRAL WHITE SOAP

Powdered, granulated Contains NO soap bark, free alkali, free acid or heavy metals. Totally free of rosin, sugar and foreign matter.

QUINCE SEED

Choice qualities rich in mucilaginous content.

In your preparation, the chain of its ingredients is only as strong as its weakest link. Neither clever merchandising nor effective advertising can replace the product's job of "delivering the goods." For more than 40 years, America's outstanding toiletry successes have relied on Hopkins' Basic Ingredients for the tested, full-strength, true-to-name quality which has helped elevate them to their present position of leadership.

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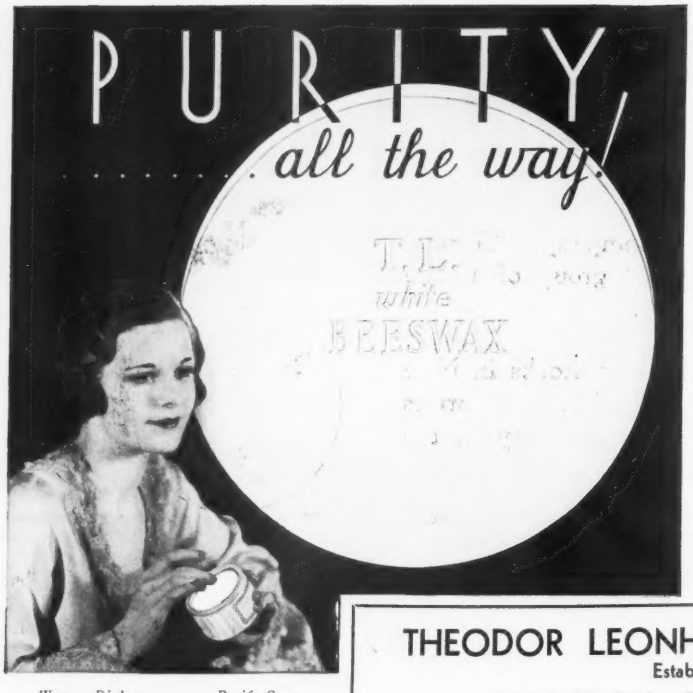

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Pioneer Brand Pure Refined
Yellow Beeswax
Ideal for lemon creams and similar preparations.

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MICHEL PASQUIER

Michel Pasquier, perfumes, has leased space at 63 West 46 st., New York.

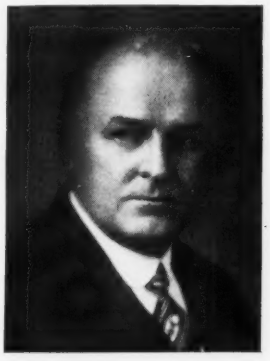
MANTON-GAULIN MFG. CO.

Manton-Gaulin Manufacturing Co., Inc. has announced that after August 1 the company will be located on Charlton st., Everett, Mass. This change in address is made necessary by the constantly increasing volume of business and the new location will enable the organization to serve its numerous customers to better advantage.

People

Harry Thompson Resigns

Harry B. Thompson has resigned from his position as general counsel of the Proprietary Association and has retired from



HARRY B. THOMPSON

active practice to locate on his country place at Piedmont, O. No successor has been engaged as yet by the Proprietary Association.

Raymond Foster Retires

Raymond Foster, former New York supervisor for Sterling Products, Inc., and an officer of several affiliated companies, has announced his retirement from active business.

During the past forty-seven years he has held many positions of responsibility. He was in the employ of Schieffelin & Co., wholesale druggist, from 1887 to 1900, when he joined the detail staff of the Farbenfabriken of Elberfeld Co., United States agent for Bayer products. In 1915 he took charge of advertising and sales of Bayer aspirin, and when Sterling Products succeeded the Allied Products Corp. in 1918 he was retained as general manager for the Bayer Co.

He organized the Winthrop Chemical Co. in 1919 and became its president and a member of the board of directors in 1923. He was also vice-president of the Bayer Co. He has also been president and a director of the following companies:—Crooks Laboratories, Inc., of Canada, Crooks Laboratories, Inc., of Delaware, the Three-in-One Oil Co., and the Antidolor Manufacturing Co.

He will continue to serve Sterling Products, Inc., as a consultant in important matters.

Frederick Stearns Succeeds Ohliger

Frederick S. Stearns, president of Frederick Stearns & Co., Detroit, has been made general manager of the company to succeed the late Willard Ohliger.

Thomas G. Long, attorney, Detroit, has been elected to fill the vacancy on the board of directors caused by Mr. Ohliger's death.

Dr. Brown Leaves M.M.&R.

Dr. Frederick W. Brown, until recently chief chemist for Magnus, Mabee & Reynard, New York, has severed his connection with that firm and is engaging in consulting service with office and laboratory at his home 2665 Briggs ave., New York.

Arthur Killen Joins Ising

Arthur H. Killen has become research chemist and secretary of the C. E. Ising Co., Flushing, N. Y. He has been doing consulting work for the company for a number of years.

Robert Kramer to Europe

Robert A. Kramer of the Th. Goldschmidt Corp., New York, sails for Europe, August 26, on the S. S. "Bremen." Most of his time while abroad will be spent visiting the various branches of the Goldschmidt organization in Germany. He will, in addition, visit several other countries in the Continent, returning to New York early in October.

Daughter to Mr. & Mrs. Kimble

Mr. and Mrs. Herman K. Kimble of Vineland, N. J., have announced the birth of a daughter on Thursday, July 12. Mr. Kimble is vice-president and general manager of the Kimble Glass Co., Vineland, N. J.

George Ellsworth Gale III

Mr. and Mrs. Ellsworth Gale of New Brunswick, N. J., have announced the birth of a son, George Ellsworth Gale, III, on July 6. Mr. Gale is director of the Red Cross products division of Johnson & Johnson.

George MacDonald Appointed

Zink & Triest, Inc., Philadelphia, has announced that George R. MacDonald, manager of the Boston office of Ungerer & Co., will represent the former company in the New England states in the sale of vanilla beans.

Carlough Consulting Service

Howard W. Carlough, for the past fourteen years executive manager, vice-president, and a director of the Terminal Barber Shops, Inc., has opened offices as a consultant at 507 Fifth ave., New York. The type of service furnished by his organization will be towards the correction of business ills, whether sales, advertising, organization, technical or production, and it will be available to smaller businesses, although not confined to them.

Wiedman Leaves Magnus

Henry A. Wiedman, who has been associated with the drug and chemical industry for many years, has severed his connection with the firm of Magnus, Mabee & Reynard, Inc., New York.

He entered the drug field in 1917 when he became associated with McKesson & Robbins. In October, 1920, he became associated with E. Fougera & Co. in the purchasing and sales departments. In December, 1928, he left the Fougera firm to become manager of the chemical division for the Schering Corp. which is now the Sherka Chemical Co.

Todd for Congress

Paul A. Todd, vice-president of the A. M. Todd Co., Kalamazoo, Mich., is a candidate for Congress from the third district in Michigan.

George Hartz with Ungerer

George Hartz, for six years associated with Magnus, Mabee & Reynard, New York, is now connected with Ungerer & Co., New York.

F.D.A. Warns on Dinitrophenol

Racketeers are selling dinitrophenol and related compounds in fat reducers in spite of reports of deaths caused by their compounds, says W. G. Campbell, Chief of the Food and Drug Administration. "Reducing agents containing these drugs," says Mr. Campbell, "have sprung up like mushrooms all over the country, and are endangering the lives of patrons. The Federal Food and Drugs Act has no jurisdiction over products of this type, dangerous though they may be. All that the Food and Drug Administration can do is to warn the public that these compounds are dangerous."

Clinical evidence shows, Mr. Campbell said, that these drugs act by increasing the metabolic rate. This amounts to a speeding up of the body processes, resulting in a destruction of the tissues, including fat, to provide fuel for the accelerated metabolism. Common symptoms are increased temperature, pulse or respiration, or copious sweating. In particular, Mr. Campbell warned, these drugs should not be used by individuals suffering from chronic rheumatism, alcoholism, tuberculosis or diseases of the heart, liver or

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"FALBA" takes five times its own weight of water

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"FALBA" imparts luster throughout the preparation

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A new concentrated rubber latex material that enables cleansing creams to ACTUALLY clean skin quickly and effectively. When compounded with waxes, oils, bentonite or clays, DERMALAC presents exceptional opportunities for the creation of new facial creams, massages and mask preparations. DERMALAC liquefies when heated and is completely free from ammonia odor.

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Akron, Ohio *Chicago, Ill.* *Detroit, Mich.*

kidneys, as poisonous and otherwise harmful effects are even more likely to manifest themselves. There is also some evidence that they may cause profound disturbance of the blood-forming organs.

These drugs, in common with many others, may serve a useful purpose when the dosage is properly adapted to the needs of the individual patient, provided there are no contra-indications to its use, he says. Proper dosage and indications for use, however, as well as prompt discovery of toxic effects, can be determined only by a skilled physician. Furthermore, there may be unexpected harmful effects that are not disclosed by the first tests. Such effects can be determined conclusively only after extensive trial and use, in addition to the tests which should in all cases be made before the preparation is offered to the public.

E. H. Gardner Joins P. A.

The advisory committee on advertising of the Proprietary Association has engaged as executive secretary Edward H. Gardner, recently associate director of consumer census for R. L. Polk & Co.

Mr. Gardner was formerly in charge of courses in advertising and marketing at the University of Wisconsin. Later he was associated with two advertising agencies, the J. Walter Thompson Company and Benton & Bowles. He is the author of various business books, including a widely distributed pamphlet, "Economics of Advertising."

Bulletin Binders

Responding to numerous requests, the drug, chemical and allied trades section of the New York Board of Trade, Inc., has made arrangements to furnish its members with black leather binders with gold lettering for the purpose of keeping the "Legislative and News Bulletins" issued by the section in a permanent file. Members will receive one of these binders accompanied by the index including such subject as "Alcohol Taxes," "Tugwell Food and Drug Legislation," "Codes" and the "Wagner Bill."

Quortrup Wins Golf Prize

Salesmen's Association held its second tournament, July 18, at Plandome, L. I., with fifty-six contestants. R. C. Quortrup, of the Barrett Co., was the winner in the Class A flight; Victor E. Williams, of Monsanto Chemical Co., was runner-up, and Edward Orem, of E. I. duPont de Nemours & Co., was third. In the Class B competition, Ira P. MacNair, of McNair-Dorland Co., was first, with W. H. Adkins, of Givaudan-Delawanna, Inc., as runner-up, and A. H. Rowe was third. Reginald M. Banks, of the American Cyanamid Co., was winner of the guest prize for low net. Ira Vandewater, of R. W. Greef & Co., was winner of the kickers' handicap, and J. W. Dobson was second, with Ralph E. Dorland, of the Dow Chemical Co., in third place. T. S. Nichols, of Grasselli Chemical Co., won the prize for the least number of putts.

Cosmetic Code Authority

Ralph H. Aronson has been elected chairman of the Cosmetic Code Authority. Charles S. Welch, member of the Au-

RALPH H. ARONSON

thority representing the Associated Manufacturers of Toilet Articles, has resigned as secretary and manager of that association to become secretary and manager of the Code Authority, which has established

CHARLES S. WELCH

offices at 10 East 40 st., New York. H. L. Brooks, of Houbigant, Inc., has been appointed by the Associated Manufacturers of Toilet Articles as its representative on the Code Authority, replacing Mr. Welch.

For the present, the office of secretary and manager of the association will remain vacant and the routine work handled by Miss A. V. Lawlor who has been assistant secretary for some years.

Maine Cosmetic Law

On July 27th, the constitutionality of the Maine Cosmetic Law, Chapter 278 of the Public Laws of Maine of 1933, was argued before a statutory court consisting of Judges Peters, Letts & Wilson.

In addition to the two test cases brought on behalf of the Associated Manufacturers of Toilet Articles, Liggett Drug Co., Inc. and Bourjois, Inc., the Association of Soap and Glycerine manufacturers also filed a bill in equity to restrain the enforcement of the law in the name of the Proctor & Gamble Co. The soap industry, however, was more interested in attempting to have the law interpreted not to include soaps, although the unconstitutionality of the law was also pleaded in their complaint.

A number of witnesses who testified both by deposition and in open court, appeared on behalf of the plaintiffs:—Dr. Blaisdell of Boston and Dr. Samuel M. Peck, of New York, dermatologists; Henry C. Fuller, consulting chemist of the Associated Manufacturers of Toilet Articles; and John Bartholomew, chemist of Bourjois, Inc.; and executives of the plaintiff companies, Messrs. Durfor, Levine and B. M. Douglas. The only witness appearing on behalf of the State was Dr. Elmor W. Campbell, head of the State Bureau of Health charged with the enforcement of the law.

At the conclusion of the hearing, the parties were given until October 1st, 1934, to file briefs, and ten days additional to file reply briefs. It is therefore expected that no decision can be had in the matter until November 1st, 1934 and in the meantime the restraining order already granted by Judge Peters remains in force.

Members of the association are therefore advised by Hugo Mock, counsel, not to register under the Maine Cosmetic Law or to make any other attempt at compliance with the same until further notice.

The Maine legislature will meet in the beginning of 1935 and an attempt will then be made to have this piece of obnoxious legislation repealed, according to Mr. Mock.

Perfume Imports Up Sharply

United States imports of perfume and flavoring materials during the first five months of this year were 73 per cent higher than for the corresponding period of 1933. Imports of materials used chiefly in the manufacture of perfumes increased 100 per cent over last year, according to C. C. Concannon, Department of Commerce.

The combined value of natural perfume and flavoring material imports during the first five months of the year was at $1,797,-200, compared with $1,041,000 for the corresponding period of 1934. Of this amount materials used chiefly in the manufacture of perfumes accounted for $1,005,700 and $503,000, respectively. In addition there was imported perfume and flavoring materials of synthetic origin valued at $23,286 during the 1934 period. Imports of synthetics have declined.

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"EVERCLEAR"
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(all formulae)

"EVERCLEAR"
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(190 Proof—Pure Grain and Pure Ethyl Cologne Spirits)

"EVERCLEAR"
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160 FRONT STREET, NEW YORK

Chicago Cleveland San Francisco

F. J. M. Miles Perfumes

Frank J. M. Miles is back in New York on a short visit from his home in Sunland, California. Mr. Miles had brought with him a very attractive display of perfumes now on sale locally in California under his own name. Among the most attractive items are Esquire Cologne, Sonsie Cologne, Poppy Petals Cologne, and Desert Verbena Cologne. Six perfumes with distinctive and beautiful labels, hand decorated, complete the display. These perfumes are: Sonsie, Jasmin Grand Duke, Leela, Lu Ann, Poppy Petals, and Thee Alone.

Mr. Miles is enthusiastic over the future of California as a flower producing center and over the commercial opportunities of establishing an American perfume with a background of California romance and its exceptional facilities for publicity. He has already succeeded in extracting the odor of gardenia using a new process developed by his son, Gilbert D. Miles, who has specialized in this work since taking a degree in chemistry. This will enable Mr. Miles to develop a perfume using for the first time the true odor of gardenia.

Mr. Miles is also working on a new method of extracting the oil of orange flowers using a process which marks a radical departure from present extraction methods and which gives promise of materially decreasing the present cost of extraction abroad. Mr. Miles expects to be in New York for a few weeks to interview leading perfume manufacturers. He will then return to his home in Sunland, Cal.

On the Air

PLOUGH, INC.

Plough, Inc., Memphis, is featuring Guy Lombardo and his orchestra in a "Lombardoland" series in behalf of St. Joseph Aspirin. The program is on the NBC network.

CASTORIA

Fletcher's "Castoria" will introduce a new radio program over the CBS network featuring "Roxy" suported by a variety of talent.

PROCTOR & GAMBLE

Proctor & Gamble Co. has inaugurated a twice a week broadcasting program in New England on behalf of Ivory shaving cream. The new cream was introduced in New England on January 1 and thus far has not been sold outside that territory.

Financial

New Stock Offerings

PLOUGH, INC.

Plough, Inc., manufacturer of medicines, cosmetics, and flavorings, Memphis, Tenn. has informed the Federal Trade Commission under the securities act that it expects to issue 125,000 shares of common stock at an aggregate price of $2,250,000, part of the proceeds to be used to erect a factory in Memphis and to provide manufacturing facilities in New York. Abe Plough, president, holds an irrevocable option to purchase 50,000 shares of common treasury stock in consideration of his agreement to serve the corporation without salary for the next five years.

NATIONAL OIL PRODUCTS CO.

National Oil Products Co. has informed the Federal Trade Commission that it expects to issue 31,692 shares of common stock at $17 a share or an aggregate price of $538,764, the proceeds to be used for working capital. Underwriters are Jackson and Curtis, 115 Broadway, New York, who hold option warrants to purchase 16,684 shares of common stock at $10 each.

Charles P. Gulick, East Orange, N. J., is president; Ralph Wechsler, Newark, treasurer, and G. Daniel Davis, Maplewood, N. J., secretary.

CHEMICAL BRANDS, INC.

Chemical Brands, Inc., Brooklyn, N. Y., has filed a registration statement with the Federal Trade Commission for the issuance of 100,000 shares of class A stock at $2.75 a share, or an aggregate of $275,000, the proceeds to be used for working capital and expenses. The company was organized March 7, 1932, to manufacture cosmetics, barber supplies and drugs, and took over the business of the former Ritz Perfume Co. and its affiliates.

Officers are Hyman Huebschman, president and treasurer; Edward O'Shaughnessy, vice-president, and Harry M. Shaw, secretary.

Earnings & Dividends

ARMSTRONG CORK

Armstrong Cork Co. reports for six months ended June 30: Profit after interest, depreciation, taxes and other charges, $1,401,087, compared with $633,417 in first six months of previous year.

BRISTOL-MYERS

Bristol-Myers Co. reports for six months ended June 30: Net income after taxes, depreciation and other charges, $1,022,047, equal to $1.46 a share on 700,280 $5 par capital shares, against $1,228,062, or $1.75 a share in same period of previous year. Quarter ended June 30: Net income after similar deductions, $352,834, or 50 cents a capital share, compared with $669,213, or 95 cents a share, in previous quarter and $629,339, or 90 cents a share, in second quarter of 1933. Twelve months ended June 30: Net income, $1,950,136, or $2.78 a share, compared with $2,344,089, or $3.35 a share, in twelve months ended June 30, 1933.

Company has declared the regular quarterly dividend of 50 cents per share on the common stock and an extra dividend of 10 cents per share, both payable September 1 to stockholders of record August 10.

COMMERCIAL SOLVENTS

Commercial Solvents Corp. reports for six months ended June 30: Net profit after Federal taxes, depreciation and other charges, $1,237,737, equal to 47 cents a share on 2,635,957 no par common shares,

The four colognes of F. J. M. Miles are shown above. It will be seen that the label on the Sonsie Cologne is hand made with fabric. The bonnet, dress, etc. are actually made by hand.

Giese's Filter Papers are the Best

Folded Paper

Bale of Filter Paper

Heavy Linen Fibre Filter Paper for Rapid Filtration of Large Quantities —Very Strong.

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A TEST in your own products will prove that Exchange Brand Oil of Orange U. S. P. gives improved results at lower cost. *Cold pressed* from rich California Oranges by an exclusive Exchange process, it gives you six quality advantages noted at the left. Try it. Note the improvement it makes in your goods. Then check your savings.

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Light. Great Adhesiveness. Pure White. Immeasurable Fineness. Heavy if desired Dusts out under the puff like the finest pollen

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Odorless. Impalpable. Pure White. Water Resisting. Great Adhesiveness. Light or Heavy as desired.

We are manufacturing the foregoing on a large scale. Deliveries in any quantity from one barrel to a carload. Prompt shipments.

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FRANKS CHEMICAL PRODUCTS CO., INC.
55—33RD STREET BROOKLYN, N.Y.
BUSH TERMINAL BLDG. NO. 9

compared with $637,048, or 25 cents a share, on 2,530,371 shares in first half of 1933. Quarter ended June 30: Net profit after same charges, $602,733, or 23 cents a share on 2,635,957 shares, compared with $635,004, or 24 cents a share on 2,635,891 shares, in preceding quarter and $412,290, or 16 cents a share, on 2,530,371 shares in June quarter last year.

ABBOTT LABORATORIES

Abbott Laboratories, Inc., reports for six months ended June 30: Net income after taxes, depreciation and other charges, $375,815, equal to $2.59 a share on 145,000 no-par capital shares, against $236,490, or $1.63 a share, in first six months of previous year.

DOW CHEMICAL CO.

Dow Chemical Co. has declared dividends as follows payable August 15 to stockholders of record at the close of business on August 1, 1934: preferred stock 1¾%; non par value stock 50 cents per share.

LAMBERT CO.

Lambert Co. reports for six months ended June 30: Net profit after taxes, $1,127,751, equal to $1.51 a share on 746,371 shares of capital stock outstanding, compared with net profit of $1,288,967, or $1.73 a share, for the same number of shares in the first half of last year. Quarter ended June 30: Net profit, $395,130, or 53 cents a share on the stock compared with net profit of $470,937, or 63 cents a share on the stock, for the same period last year.

LEHN & FINK

Lehn & Fink Products Co. reports for six months ended June 30: Net profit after depreciation, Federal taxes and other charges, $296,884, equal to 74 cents a share on 400,000 $5 par capital shares, compared with $314,540, or 77 cents a share on 408,966 shares, in first half of 1933. Quarter ended June 30: Net profit, $97,143, or 24 cents a share on 400,000 capital shares, compared with $199,741, or 50 cents a share, on same number of shares in the previous quarter and $196,563, or 48 cents a share on 408,966 shares in second quarter last year

MCKESSON & ROBBINS

McKesson & Robbins, Inc., reports sales for six months ended June 30 totaled $62,567,922, against $13,693,133, a gain of 28.0 per cent over the same period last year. June sales totaled $9,922,537, against $8,956,800 in that month a year ago, an increase of 10.8 per cent. Sales in May were 16.9 per cent higher than May, 1933.

COLGATE-PALMOLIVE-PEET

Net profit of the Colgate-Palmolive-Peet Company and subsidiaries for the six months ended on June 30 was $2,416,887 after all charges and provision for taxes, an increase of 215 per cent over the same period last year. This is equal, after preferred dividend requirements, to 84 cents a share on 1,999,970 shares on no-par value common stock outstanding and compares with a net profit of $765,120, or a fraction of a cent a common share, in the first half of 1933.

SHARP & DOHME

Sharp & Dohme, Inc. reports for six months ended June 30: Net profit after depreciation, Federal taxes and other charges, $526,045, equal, after $3.50 cumulative convertible preferred dividend requirements, to 16 cents a share on 776,627 no-par common shares, against $271,632, or $1.18 a share on 229,085 preferred shares in same period of previous year. Quarter ended June 30: Net profit, $205,381, equal to 1 cent a common share, compared with $320,664, or 15 cents a common share, in preceding quarter and $149,229, or 65 cents a preferred share, in second quarter of 1933.

STERLING PRODUCTS

Sterling Products, Inc., for the six months ended on June 30, had a net profit of $5,037,011 after charges, depreciation and Federal taxes. This is equivalent to $2.87 a share on 1,750,000 shares of $10 par capital stock.

For the quarter ended June 30, the net profit was $2,263,215, after charges and Federal taxes. This was equivalent to $1.29 a share on the capital stock, and compared with a net profit of $2,773,796, or $1.58 a share in the preceding quarter.

Obituaries

Franklin Black

Franklin Black, treasurer and a director of Charles Pfizer & Co., New York, died at his home in that city, July 21, aged 75. He was born in New York, June 21, 1859 and entered the employ of Charles Pfizer & Co. in 1875. He was continuously associated with the company for 59 years, becoming secretary in 1906 and treasurer in 1925. He was prominent in the affairs of both the National Wholesale Druggists Association and of the American Drug Manufacturers Association. He served continuously as treasurer of the latter organization from 1914 until 1933, when he asked to be relieved. In recognition of this unusual service, he was made an honorary permanent member of the advisory council. This was a position created by special resolution particularly to honor Mr. Black.

His early selling experiences and his association activities had given him an unusually large circle of friends and acquaintances in the drug and chemical field and he was an exceedingly popular personality with all who knew him.

Francois Coty

Francois Coty, famous perfume manufacturer and former newspaper publisher, died at his home in Louveciennes, near Versailles, France, July 25, from double pulmonary congestion. He was sixty years old.

Mr. Coty, whose real name was Joseph Marie Francois Spoturno, was born in Ajacio, Corsica, of humble parentage. He began life as a journalist in his home town, but a natural taste for chemistry led him into the perfume business, which developed for him a worldwide reputation. After making a fortune in perfumes, he reentered journalism as a newspaper owner, but recently, due to financial losses and the depression, he was obliged to relinquish control of his newspapers.

At his death, he was president of Coty, Inc., but for some time had not had the controlling stock interest in the company.

George Vernon Sheffield

George Vernon Sheffield, vice-president, treasurer, and a director of Innis, Speiden & Co., New York, died at Old Orchard, Me., July 19, aged 78. He had been identified with that firm since 1878 when it was known as Innis & Co. It was his family which founded the Sheffield Farms Co. and in addition to his connection with Innis, Speiden & Co. he was active in many other business, civic and religious affairs.

Cornelius O. Watney

Cornelius O. Watney, vice-president and treasurer of Ogden-Watney Publishers, Inc., publishers of *The Glass Packer* and *The Glass Industry*, died on July 7th at Greensboro, Vt. Mr. Watney was taking a vacation with his family in the Green Mountains. While swimming one afternoon, he called suddenly for help, and though friends quickly responded and brought him to the shore, he never regained consciousness. Interment was at Portland, Oregon, July 14.

He was born in Seattle, Wash., August 11, 1900 and was a graduate of Oregon State College. In 1928, he and another organized the Ogden-Watney Publishers, Inc., New York, publishers of *The Glass Packer and The Glass Industry*. His home was in Madison, N. J.

Frank R. Deutman

Frank R. Deutman, aged 50, vice-president of the Provident Chemical Works, St. Louis, died July 24 of heart disease. He started as an office boy with the chemical firm about thirty-five years ago.

John Wesley Haley

John Wesley Haley, secretary of the McKesson-Murray Drug Co., Augusta, Ga., died suddenly at his home in that city on July 26.

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RAW MATERIAL MARKETS

Edited by Harry G. Kelbly

Botanicals

Crop conditions continued to be of more paramount importance in the crude drug market than the immediate demand for merchandise. For the most part sales were in limited quantities characteristic of the season. It is significant, however, that the seasonal decline in sales has not weakened the price structure when considered as a whole. Unfavorable crop reports are the word both from Europe and the United States. This has tended to check any declines that are more or less common at this time of year when new collections enter a market that is comparatively inactive. Reports continue to be received of drought in Central Europe and also in England. Reports from domestic quarters are also unpromising.

CASCARA SAGRADA—Pacific Coast shippers reported as being reserved in their offerings. Although the price paid to peelers was higher than prevailed a year ago the peel this year is extremely light. Fewer men are now engaged in the work, having found employment in public works and other pursuits with the result that dealers do not have enough bark to meet commitments. Export trade is said to have taken considerable bark out of the market, foreign buyers paying more than the domestic users are disposed to pay. An advance of 2c per pound was made to peelers over the price they received earlier in the season but the results are still disappointing. On the spot the market was advanced to a basis of from 9c to 11c per pound.

PSYLLIUM SEED—The market continued to be very dull. Dealers have found it difficult to move stocks in warehouse in any important quantities. There has been no change in quoted schedules primarily because of the already low prices prevailing.

Psyllium seed imports during the first 5 months of 1934 declined sharply. Figures are shown in the accompanying table. While the quantity imported for the period under consideration was only a little more than one-fifth that imported for an equivalent period of 1933, the declared average import value per pound rose from $0.054 in 1933 to $0.078 in 1934. Details for the trade for the 3 year period 1931-1933, and the first 5 months of 1933 and 1934 follow:

Year	*Pound*	*Value*
1931	4,846,000	$690,000
1932	5,503,000	466,000
1933	4,628,000	260,000
Year	*Pound*	*Value*
1933 (1st 5 mos.)	2,852,000	$154,500
1934 (1st 5 mos.)	645,000	50,400

VANILLA BEANS—A further sharp reduction was noted in the reserve supply in the French market. Comparison of stocks now in hand with supplies a year ago was expected to be the backbone of a continued strong market for Bourbon beans. Further advance in prices locally was avoided, however. Most dealers were of the opinion that a further advance would not be good for business at this time as it makes too high the price of the finished product. Prices were said to be high enough for the good of the trade. Mexicans continued in the strong position noted heretofore. The inside price of cuts was raised to $3.25 per pound with the range as to quantity and quality to $3.50 per pound.

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Look over this Table of Contents

How many Questions on this page can YOU answer?

What chemical will dissolve dandruff?

What causes a vegetable oil to go rancid and what chemical will prevent rancidity?

Is lithopone in face powder injurious?

What causes a shampoo liquid to become turbid?

Is there a simple way to classify cosmetics to make research easy?

What is the best machine to use for making emulsions?

How can an emulsion be kept from separating?

Must a face cream be antiseptic?

What property must a sunburn preventative have?

Can sulfonated oil be used in tooth paste?

What is the best way to fill vanishing cream?

In what respect is a homogenizer superior to a colloid mill?

What is the difference between a vacuum and a pressure filter?

What is the most suitable type of liner for cream jars?

Can bleeding and sweating of creams and lipsticks be prevented?

What is the best way to arrange equipment for making cosmetics?

How many different ways are there for making powder?

What is meant by absorption base?

What is "white henna"?

What is a "color rinse"?

In what way can heavy quince seed and other mucilages be clarified?

What materials may be used to soften the beard?

Is barium sulfate or "blanc fixe" a good ingredient of face powders?

How can a lipstick be kept from crumbling?

Can sulfonated oils be used in cleansing creams?

What functions must a scalp tonic perform?

What are the ideal properties of a cleansing cream?

In what creams is lecithin used?

What causes pearliness in vanishing and shaving creams?

What are the functions of a tooth paste formula?

How can warts be removed?

What are eye cosmetics?

How are hand creams made?

What is a pony mixer?

In what way does ultra-violet light affect a sunburn preventative?

What chemicals are good preservatives?

Can the skin be bleached?

What causes blackheads?

How may freckles be removed?

Why is it necessary to chill some kinds of mouth washes before filtering?

What chemicals make good cosmetic antiseptics?

Should tooth pastes be made hot or cold?

What cosmetic property does coconut oil possess?

What is meant by the wetting action of lather?

Are soapless shampoos better cleansers than liquid soaps?

How is sodium lauryl sulfonate used?

What chemicals are the best deodorants?

How should a depilatory paste be made?

What is the difference between a paste and a cream rouge?

Should a foot deodorant be antiseptic?

Can a small cosmetic factory be laid out for less than $1,000.00?

Is a pebble mill as good as a pulverizer for making face powders?

What is the best way to clean sprinkler top bottles?

Is it necessary to use distilled water in cosmetics?

What is the best production shape for a cosmetic bottle?

What properties should a nail polish have?

How is nail polish cream made?

What will relieve sunburn?

Is sulfonated castor oil useful in scalp tonics?

What purpose in cosmetics is served by irritants?

How can oily scalp be relieved?

How many cosmetics should be chilled by artificial means?

How is hair softened for permanent waving?

What causes jelly brilliantines to separate?

In what cosmetics is rubber latex used?

What kind of hair preparations can be made with deodorized kerosene?

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FACE POWDERS—How to make light, medium and heavy face powders, cream powder. Materials used for slip, covering powder, adhesiveness. Uses of titanium dioxide, lithopone, zinc sulfate. Selecting face powder materials. Balancing the formula. Making color bases and matching shades. Methods of making face powder: mixers, pebble mills, pulverizers, churns. Types of sifters. Suggestions and short cuts.

CLEANSING CREAMS—Properties of an ideal cleansing cream. Sulfonated oil in cleansing creams. Quick melting types. Jelly type. Absorption base type. Rolling massage cream. Liquid cleansing cream. Cleansing lotion. Detailed manufacturing procedure and equipment.

LUBRICATING (TISSUE) CREAMS—Theories of skin absorption. Function of lubricants. Uses of hot and cold applications. Value of massage. Materials used: lanolin, hormones, lecithin, cetyl alcohol, cocoa butter, cholesterin, absorption bases. Formulation with lecithin and cholesterin, cetyl alcohol and cocoa butter, lanolin and cetyl alcohol. Manufacturing suggestions.

VANISHING CREAMS—How to secure pearliness. How to adjust consistency. Function and effects of alkalis. Use of ethyl ether of diethylene glycol and glycerin. Triethanolamine and glyceryl monostearate. Preventing shrinkage. Mechanical filling. Production hints.

COLD AND ALL PURPOSE CREAMS—Basic type. How to make different kinds. How to modify cold creams. Consistency and shine. All purpose creams. Materials used and detailed manufacturing procedure. Various methods of production.

HAND CREAMS—Cetyl alcohol creams. Function of glycerin and glycerin substitutes, lecithin and sodium lauryl sulfonate in hand creams. Manufacturing procedure.

PRINCIPLES OF COSMETIC RESEARCH—Simplification of research. How to identify and classify cosmetics. Physical categories. Manufacturing equipment and procedure for each class. Aids in manufacture, short cuts and suggestions.

LIQUID CREAMS—Formulas for various types. Lanolin in liquid creams. Cucumber creams. The use of homogenizers. Maintenance of stability.

ASTRINGENT CREAMS—Astringent chemicals. Value of astringent creams. Formulas for various types. Production suggestions.

BLEACHING CREAMS—Chemicals possessing bleaching properties. Mercury salts. Methods of compounding. Precautions.

ACNE, BLACKHEAD AND ECZEMA CREAMS—Causes of acne, blackhead and eczema. Cosmetic treatment. Antiseptics. Cleansers. Diet. Compounding data.

MOUTH WASHES—Dr. Lister's original formula. Alkaline, chloro-phenol, resorcinol, salvol, oxyquinoline, astringent, aromatic, formaldehyde and concentrated mouth washes. Mouth wash powder. Manufacturing details.

TOOTH PASTES—Polishing agents, excipients, binders, sweetness, flavors, lubricants, antiseptics. Alkaline and acid pastes. Functions of formulas. Preventing bleeding and hardening. Milk of magnesia paste. Suggestions. Equipment.

TOOTH POWDERS—Flavors. Oxygenated. Sodium perborate. Antacid tooth powder. Acid powder. Alkaline powder. Manufacturing procedure. Short cuts.

SHAVING CREAMS—Softening the beard. Properties of lather. Preventing razor rash. Use of sodium cholate, sodium lauryl sulfonate, lecithin, cetyl alcohol. Superfatting. Elimination of ageing by means of refrigeration. Detailed manufacturing procedure for many types of cream.

BRUSHLESS SHAVING CREAMS—Relation to vanishing creams. Materials used to soften beard and reduce surface tension. Sulfonated oils and cetyl alcohol in brushless shaving creams. Manufacturing procedure and equipment used.

AFTER SHAVING LOTIONS—General purpose lotions. Lotions for oily skins. Lotions for dry skins.

BEARD SOFTENING PREPARATIONS—Preparing tender skins for shaving. Chemicals used as counter irritants. Materials employed to soften beard and prevent irritation. Lotions and creams.

DEODORANTS—Liquids, pastes, compacts, sticks, powders. Chemicals possessing deodorant properties. Antiseptics employed. Nature of perspiration. Function of deodorants. Detailed formulas and manufacturing procedure.

DEPILATORIES—Powders, pastes, liquids, epilating waxes. Chemicals that will dissolve hair. Method of determining idiosyncrasy. Preventing irritation. Methods of manufacture and packaging.

MAKE-UP PREPARATIONS—Lipsticks, paste rouge, paste rouge base, cream rouge, eye shadow, various colors. Preparing and milling bases. Equipment employed. Method of handling molds.

MANICURE PREPARATIONS—Nail gloss, remover, powder polish, paste polish, nail cream, nail white, cuticle remover, cuticle softener, liquid nail bleach. Function of solvents, plasticizers, spreaders and glossing materials. Detailed manufacturing procedure.

SKIN TONING LOTIONS—Toning the skin after application of creams. Cooling and antiseptic chemicals. Clarifying and filtering. Homogenizing.

ASTRINGENT LOTIONS—Refining the pores by means of astringent solutions. Incompatibles. Filtering.

HAND LOTIONS—Honey and almond, cucumber, strawberry, lemon, rose water and glycerin. Chap lotions. Importance of preservatives. Making the mucilage. Emulsification. Use of colloid mill.

BLEACHING AND FRECKLE LOTIONS—Bleaching chemicals. Dangers of certain materials. Fruit and lactic acids. Peroxide. Perborates.

ACNE, BLACKHEAD AND ECZEMA LOTIONS—Causes of blackheads and eczema. Antiseptic solutions. Softening scaly skin.

SUN PREPARATIONS—Preventive chemicals. How to determine the value of a preventive chemical. Preventive lotions, creams, powders. Suntan products: creams, powders, oils, lotions. Sunburn preparations: healing oil, sunburn lotions. Picric acid and benzocaine.

ALOPECIA TONICS—Causes of baldness. Prevention of baldness. Stimulating tonics. Irritants, antiseptics, cleansers. Detailed manufacturing procedure.

DRY SCALP AND DANDRUFF TONICS—Causes of dry scalp. Elimination of dandruff. Stimulating and antiseptic chemicals.

OILY SCALP AND DANDRUFF TONICS—Causes of oily scalp. Astringent chemicals. Antiseptics. Elimination of scabs and oily dandruff.

SOAPLESS SHAMPOOS—Sulfonated oils. Proper formulation. Cleansing properties. Hand cleansers. Hot oil treatments.

SOAP SHAMPOOS—Shampoo liquids and jellies. Hand soaps. Selection of raw materials. Cold and hot process shampoos. Olive oil, almond oil, coconut oil and tar shampoos. Causes of turbidity. Chilling and filtering.

WAVING FLUIDS, JELLIES AND POWDERS—Waving powder, quince seed curling fluid karaya, tragacanth, pectin, Irish moss, curling jellies. Sulfonated oil curling jelly.

SCALP OINTMENTS—Scalp diseases. Antiseptic ointments. Manufacturing procedure. Milling.

MISCELLANEOUS HAIR PREPARATIONS—Bay Rum, blueing, baby scalp oil, tar tonic, sage tonic, hair restorers, lemon, henna and chamomile rinses. Hair straightener. Permanent waving fluids, white henna. Color rinses. Soapless dry shampoo. Dry shampoo.

BRILLIANTINES—Liquids. Jellies. Selection of materials. Causes of separation. Detailed manufacturing procedure.

TOILET POWDERS—Talcum, body powder, after shave, baby powder, foot powders, liquid powders, cream powders, cake powders, medicated powders. Mixing, perfuming and sifting. Production helps.

BATH PREPARATIONS—Bath salts. Oxygenated salts. Effervescent salts. Medicated salts. Bath tablets. Bath perfumes. Water softeners. Pine Bath.

MISCELLANEOUS COSMETICS—Muscle oil. Foot preparations: Corn removers, foot deodorants, foot bath powders, callous softeners, deodorizing astringent. Facial clays. Insect repellants, lotions, creams, powders. Preparations for insect bites, camphor ice. Wart removers. Styptic pencils. Eye lotions.

TABLE OF COMMON PRESERVATIVES—All the important preservatives used in cosmetics, including many new ones.

TABLE OF COMMON ANTISEPTICS—Inasmuch as antiseptic creams are becoming popular, this table will give the interested manufacturer data on all powerful antiseptics, many of which are new. In this table a group of antioxidants for preventing rancidity of vegetable oils will be found.

LIST OF EQUIPMENT—This section gives much helpful data on all the equipment used in the manufacture of cosmetics.

HOW TO LAYOUT A COSMETIC FACTORY—In this interesting section a great deal of the author's practical experience is made available to the reader in a clear, simple form, together with layout drawings for various types of building and various products.

PACKAGING—Here are described all the packaging materials used in the packaging of cosmetics. These uses and varieties of materials available and practical hints on how to package cosmetics properly.

BUYERS GUIDE—Approved sources of supply for raw materials and supplies, essential oils and aromatic chemicals, equipment and packaging, materials are listed in this interesting section.

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Acne creams
Cream powders
Nail whites
Curling fluids & jellies
Acne lotions
Eczema ointments
Tooth powders
Deodorant pastes
Permanent waving fluids
Lubricating creams
Cold creams
Scalp ointments
Skin toning lotions
Tissue creams
Vanishing creams
Nail polish remover
Cuticle removers
Beard softeners
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Deodorants
Depilatories
Suntan powders
Freckle lotions
Baby powders
Bath salts
Hand creams
Cream rouges
Depilatory powders
Talcum powders
Depilatory pastes
Sunburn preventive lotions
Preventive creams
Sunburn remedies
Liquid face powders
Foot powders
Muscle oils
Cleansing creams
Shampoo liquids
Hand soaps
Body powders
Insect repellents
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WASHING JERSEY TEA

CLOVES—The Government of Zanzibar are introducing a series of special ordinances to remedy the precarious position of African and Arab clove-growers who, on account of depressed prices, are unable to pay the interest on heavy indebtedness incurred with Indian moneylenders when values were high.

The Government is alarmed at the rapidity with which land is passing out of the hands of indigenous producers into those of non-agricultural moneylenders, and consider that steps to keep producers on the land are urgently required. It is proposed to give a 12 months' moratorium on all mortgages, to prohibit the future alienation of land to a non-African or non-Arab without the consent of the British Resident, and to limit the future period of mortgages to 20 years. In no circumstances can a mortgagee obtain title; even if the debt is undischarged, the land reverts to the original owner. During the interval the mortgagee will be allowed only usufructuary privileges.

Further ordinances establish a clove-growers' association for the purpose of organizing marketing and advancing sums to producers from such revenue as an export levy. Authority will be given for loans on Kenya Land Bank principles for a maximum period of 15 years. It is further intended to penalize the adulteration of cloves and to institute an inspection of grading. Another ordinance prohibits the granting of credit to African or Arabs by tradesmen. It is proposed to charge 5,000 rupees for a clove export license. The Government are also credited with the intention of granting an American company a monopoly to distil clove oil locally, thereby establishing a new industry.

CINCHONA BARK—Production both of cinchona bark and of quinine are now under strict control in Netherland India and in the Netherlands, giving this Dutch industry a considerable measure of control in the world market. Although little information is released, it is stated that the production of bark has been satisfactorily reduced in Netherland India. Exports of bark from those colonies to the Netherlands declined from 8,380 tons in 1929 to 3,900 tons during 1933. While the quinine production figures for the Netherlands have not become available, exports of this product increased in 1933 to above the 1929 level of 568 tons. As compared with 1932 shipments, exports during the past year increased as follows: To the United States, from 78 to 136 tons; to Russia, from 52 to 126 tons; to Greece from 65 to 120 tons; and to all other countries, from 177 to 212 tons.

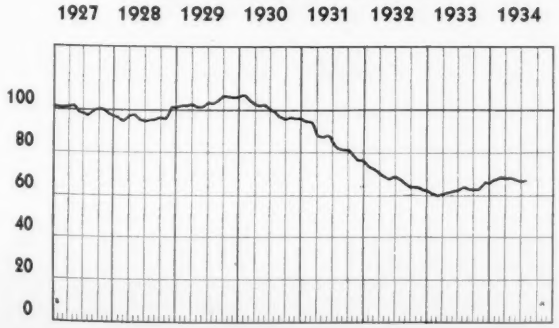
LOBELIA—In anticipation of purchase of new crop material at favorable and lower prices, the market on spot declined to the basis of from 32c to 34c per pound.

TONKA BEANS—Recent arrivals of new crop stocks were mostly for the tobacco trade. Sizable shipments received here would indicate that the new crop was satisfactory and that more liberal supplies may be looked for. As earlier predicted in our reports a reaction from the high levels has taken place with the spot market now on the basis of from $3.50 to $3.60 per pound for Angostura beans as to quantity.

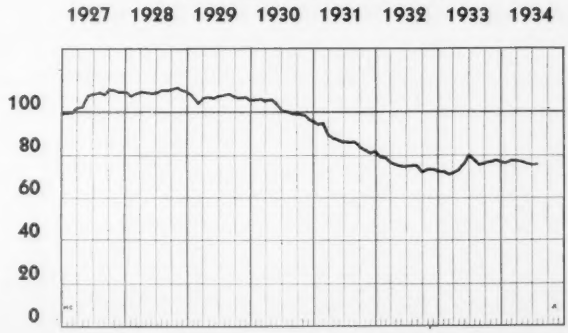
CHAMOMILE—New arrivals have created a competitive situation on spot that resulted in a reduction in price from the high levels reached a month or two back when reports of drought damage to the new crop were first authenticated. Spot prices are now on the basis of from 35c to 37c per pound. The general situation is still said to be statistically strong. The early part of the year price was on the basis of 18c per pound.

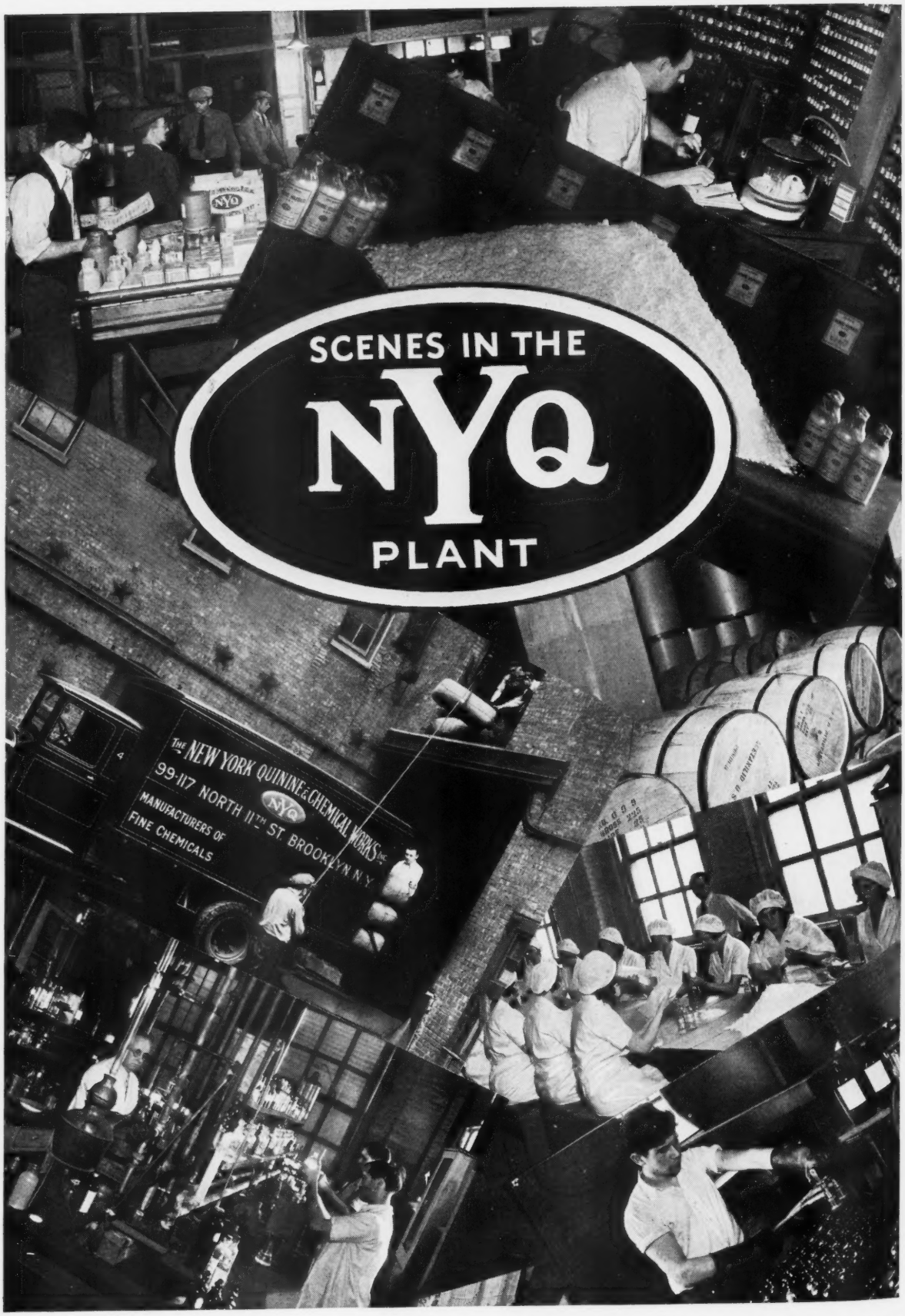
BUCHU—Prices for shipment goods advanced sharply and spot quotations were raised to the basis of from 33c to 35c per pound. Underproduction in South Africa was said to be responsible for the sharp advance on spot.

15 Botanicals—Weighted Index
1926 Average Prices Equal 100



15 Medicinal Chemicals—Weighted Index
1926 Average Prices Equal 100

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Gums and Waxes

A steady gum market prevailed during the past month. Amber sorts arabic was well maintained at the recent advance. Gamboge was very firm on light offerings here and on the whole, although business tended to the quiet side there was no shading of prices in view of the import position. Carnauba lead in strength as far as the wax market was concerned. The principal strength in this market generally was the maintained cost of waxes at the primary source of supply and the absence of surplus stocks here.

TRAGACANTH—The 1933 crop is generally confirmed to have been of very good quality, including 40 per cent to 45 per cent of "whites," 30 per cent of "yellows," 15 to 20 per cent of "reds" and 10 per cent of "Stainies" and "Muddies." The large proportion of finer grades obtained in 1933 as compared to previous years is due to the fact that on account of low world market prices and difficulty of selling lower grades, interested parties gathered at the beginning of the season a quantity of "whites" and did not make more than 2 or 3 incisions on shrubs, whereas normally 4 or 5 incisions are made during the season. Favorable weather conditions during the early incisions contributed further in the yield of good and clean "white" flakes. The increased tax collected also accounts for the fact that the gathering of lower grades of gum tragacanth is being abandoned to a great extent.

During the month of July 1933, prices increased about 15 per cent, but declined in August to almost their previous level. During the Fall months there was a slight upward trend in prices. Since the end of December prices have increased from 15 per cent to 20 per cent, according to quality. The higher prices are noticeable especially in the lower grades, stocks of which are short this year.

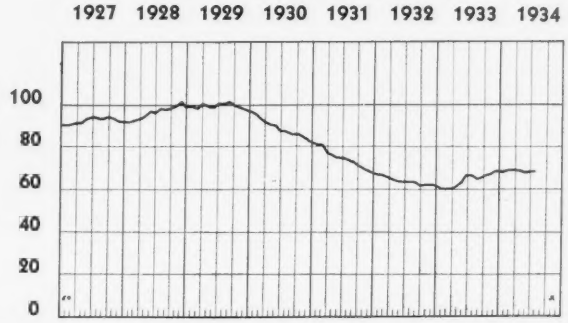
Imports of gum tragacanth into the United States during the first 4 months of 1934 amounted to 333,000 pounds as compared with 647,000 pounds for the similar period of 1933.

COLLECTOR WITH LOAD OF JERSEY TEA

ARABIC—Amber sorts advanced to a basis that ranged from 10c to 12c per pound as to quantity. Although demand did not press on local stocks the market reflected the tendency to sellers to keep prices in line with cabled offers from the primary market. Arabic is gradually advancing to a basis that will make it at least profitable to collect and ship this material. On shipments for the first 4 months of 1934 the average declared import value per pound nearly doubled over the similar period of 1933. Imports were also higher, amounting to 1,503,000 pounds from January to April, 1934, as compared to 1,087,000 pounds for the similar period of 1933.

MYRRH—Steady price views prevailed on spot. Current market demand was not very active but sellers were reserved in the matter of accepting bids at any substantial figure below the prevailing market of from 25c to 30c per pound U. S. P.

50 Raw Materials—Weighted Index
1926 Average Prices Equal 100



Price Movements

For the month of August small changes in the various price groups resulted in a change of only 0.1 in the 50 commodity index, which stood at 68.4.

The medicinal chemical index in August was 75.5 as against 75.4 in the previous month. Only menthol changed price, increasing from $2.75 to $2.85.

Two price changes in August brought the botanical index back to its June level; in August it was 67.7. Cascara was quoted at 9 cents while ergot dropped from 43 cents to 40 cents.

The essential oil index in August was 54.6 compared with 55.0 in July. Anise increased from 42 cents to 45 cents; bergamot increased 5 cents to $1.70; cananga rose to $2.20 from the previous $2.00; geranium dropped from $6.00 to $5.75; lemon decreased 10 cents to $1.05; peppermint increased to $3.75.

Three price changes among cosmetic raw materials raised the index in August to 73.5. Gum arabic was quoted one cent higher at 20 cents; ceresin wax rose to 11 cents; and menthol changed from $2.75 to $2.85.

KARAYA—Movement of the higher grades of this gum were reported as seasonally active. Prices were fully maintained on a basis that ranged from 10c per pound to 30c per pound as to quality. The wide spread in the price of this gum is due to the various qualities obtained after sorting. The outrun of the various grades is approximately finest 5 per cent, extra 30 per cent, middlings 30 per cent, fine 20 per cent and residue 15 per cent.

The season for collecting is April-June, during which time the whitest color gum is obtained. When the monsoon (rainy season which is usually May-June to September) begins the gum commences to turn yellowish, and gets more so as the monsoon season advances.

All grades exude out of the same cut in the tree, and are therefore all in a large lump which is permeated with bark. These lumps are broken up and the various grades sorted out.

BEESWAX—Replacement prices for crude material were high and tending upward. Hence the spot market for bleached wax lacked any signs of unsettlement and the trade as a whole expected higher values eventually to prevail in both bleached and yellow refined material.

JAPAN WAX—No change developed. Prices were steady at from 6¾c to 7c per pound and reflected the strength reported in the primary market.

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Golden Seal

Hydrastis canadensis is a native of North America. It is known by the common names golden seal, yellow puccoon, yellow root, and other similar expressive appelations signifying its color, or applying to its nature.

The root of this plant was first used by the Indians as a cuticle stain, and also as a dye for their garments. Being exceedingly bitter, it was also useful in repelling insects, when mixed with grease and smeared upon the skin, and hence served a double purpose in the use of primitive man.

Although it had been mentioned in various medical publications, the drug was held in slight repute, and was of no commercial importance until the advent of the American Eclectics, who first prepared its alkaloidal salts for professional use. Its medical history therefore dates from its use by the Indians, who introduced it as a native remedy to the earliest botanical explorers, and to settlers.

Rafinesque, 1828, states that the Indians employed golden seal as a stimulant, and that the Cherokees used it for cancer, but that for this purpose better remedies were known to them. The principal use of hydrastis by the Indians, however, and the use which afterwards crept into domestic practice, was as an infusion or wash for skin diseases and for sore or inflamed eyes. It was also employed as a stimulant for indolent ulcers, and as an internal tonic.

BED OF GOLDEN SEAL

Fine Chemicals

Business throughout the past month was within seasonable limits but for the most part there was a steady call for merchandise. A steady price position was maintained with undertones about firm. Raw materials were in a firm position and this assisted in eliminating basic market weakness. Production costs made competition unlikely. Foreign exchange was more stable tending to define more clearly cost to replace imported merchandise. For this reason prices for imported materials remained on the firm side.

LACTIC ACID—Uncertainty of business conditions in the foreign market tended to make the position of this acid somewhat unsettled. Prices on spot were exceptionally firm but without open change. Opinions prevailed that based on replacement costs the spot market should be somewhat higher. Demand was reported as good but within seasonable limits.

ACID PYROGALLIC—Prices were advanced with the following schedule now prevailing: Resublimed U. S. P. 5 pound cans $2.00 per pound, 1 pound cans $2.02 per pound. Crystals U. S. P. 25 pound cans $1.60 per pound, 5 pound cans $1.73 per pound.

MENTHOL—The paradoxical situation of a very dull spot market but an advancing price situation still continues to cause discussion and uncertainty in this item. During the past month the spot market price was advanced 10c per pound and is now offered on the basis of $2.85 per pound in case lots and $2.95 for smaller quantities. Buyers were reported as few and far between.

The only explanation that can be offered is that the Japanese market continues very firm—in fact offerings have been reported in some cases at prices as high as now prevail in the New York market. Exceptionally heavy buying in Japan, especially on the part of certain factors in the United States, has materially aided Japan in the disposition of a great part of the exceptionally heavy production of last year.

With importations so far this year amounting to some 6,000 cases it would seem logical to assume that the menthol supply in the United States is inordinately heavy. It would also seem unlikely that this country can continue to buy from the new Japanese crop, now being cut, in quantities that will be of material assistance to the producers.

The first cutting of the Sambi crop takes place in July and yields about 10 per cent. of the whole crop. The second and third cutting takes place in September and November respectively and yield approximately 45 per cent. each. On the other hand the Hokkaido crop has one cutting toward October-November.

The Hokkaido crop this year, it is roughly estimated will amount to 1,325,000 pounds and the Sambi crop 198,750 pounds or a total of some 1,523,750 pounds. As only the first Sambi cutting has been made it must be realized that the above figures are estimates only and subject to revision.

The above figures compare well with the actual production from the 1933 crop which was the largest in some fifteen years. Last year Hokkaido produced 1,855,000 pounds and Sambi 265,000 pounds making a total of 2,120,000 pounds.

According to reports the Japanese have been very successful in disposing of the unprecedently large crop of 1933. During 11 months from July 1933 to May 1934 exports amounted to 1,811,275 pounds. Exports estimated for June 1934 at 106,000 pounds would make a total of 1,917,275 pounds for a twelve months period. In addition to these exports Japan consumption at home is about 132,500 pounds. There is also a refining loss of about 106,000 pounds making a total of 456,462 pounds. In other words about 2,155,775 pounds of raw material was disposed of during the past 12 months. Carryover on the first of July 1934 was therefore not larger than that of last year.

The Japanese base their position on the above statistics, and the fact that refiners in Japan will have to buy for replacement this season in a large way.

GLYCERIN—Refiners were in the market only occasionally for crude material with the result that the market was not too steady in price. To some extent buyers were able to bid successfully. This reversed somewhat the position of several months back when it was extremely difficult to obtain crude material. Refined glycerin was steady in price and subject to a fair demand.

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ALCOHOL—The market is active due to the booking of anti-freeze business for delivery in the Fall. Prices are being maintained on the basis of the schedule recently announced. Movement of specially denatured alcohol is characterized as seasonal.

The Treasury Department has just announced the approval of wood alcohol as a denaturing material in completely denatured alcohol. This material was removed during the latter years of prohibition as being too dangerous but is now reinstated and a new formula being prepared.

The action was taken after protest on the part of distillers and business men against the old formula. The Treasury statement said: "Business men, in protests against the existing formula, asserted it was not satisfactory for anti-freeze purposes because of disagreeable odors of denaturants used, and that these odors interferred with the utility of this type of industrial alcohol in manufacturing processes. They claimed that non-odorous substitutes were supplanting denatured alcohol for anti-freeze purposes.

"Producers and users, at the hearing, held in Washington, stressed the fact that the public can buy 100 per cent methyl alcohol (Wood Alcohol) without restriction. They questioned the necessity of prohibiting the manufacture and sale of denatured alcohol containing a relatively small percentage of wood alcohol. They also emphasized the point that legalization of beverage liquors has virtually removed the danger to the public existing in earlier years, growing out of the use of denatured alcohol for beverage purposes. It was also their contention that wood alcohol, used as a denaturant, offers greater protection against diversion of the denatured product, and thus greater protection of the government's liquor revenue, than do the denaturants now used."

In his report to Guy T. Helvering, Commissioner of Internal Revenue, Mr. Graves said:

"I have given careful consideration to all phases of this question and I am of the opinion that it would be advisable to restore wood alcohol as one of the denaturants for completely denatured alcohol."

The new formula asked by the petitioners is as follows: "To 100 parts by volume of ethyl alcohol, not less than 160 degrees in proof, add 7 parts by volume of approved methanol and 0.5 part by volume of approved gasoline." Petitioners contended that this formula, containing approximately six parts more of methanol than the formula now in use, would eliminate the unpleasant odor.

SYNTHETIC CAMPHOR—As a result of curtailed demand from the domestic plastics industry, the intensified Japanese competition in foreign markets, and the growth of production in the United States, the Schering-Kahlbaum A. G., of Berlin, principal remaining producer of synthetic camphor, was obliged to close one of its two producing plants (namely, the Rheinische Kamferfabrik, at Dusseldorf-Oberkassel) and transfer the output of that plant to its Elberswalder plant. Even with this increased output the latter plant has been able to utilize only a part of its productive capacity.

CITRIC ACID ITALIAN—In a report entitled "Citric Acid Production for the Fiscal Year December 1, 1932 to December 1, 1933," Consul Bernard Gotlieb, Messina, states that the most striking features of the year under review were the vigorous fight against the production of fermentation citric acid and the rivalry between Italian manufacturers of natural citric acid.

MAIDEN HAIR FERN

Maiden Hair Fern

Maiden Hair or Venus Hair consists of the fronds of Adiantum pedatum. These well-known ferns are rather common in Eastern and Central United States and are occasionally used in medicine as demulcents, expectorants and tonics. The value of this medicinal use is open to question.

Tradition has attributed to various species of this genus of ferns valuable properties in chronic pulmonic catarrhs. The European species is sometimes employed on the Continent as an emmenagogue under the name of polytrichi and is given in the form of infusion, sweetened with sugar or honey, and a syrup prepared from it is said to be popular in France under the name of sirop de capilla e, and official in the French Codex.

INDIAN TURNIP

Indian Turnip

Arum triphyllum, commonly called Dragon Root, Wild Turnip, Devil's Ear, Pepper Turnip, Indian Turnip, Jack-in-the-Pulpit, Memory Root. In the recent state it has a peculiar odor and is violently acrid. It has been found to contain besides the acrid principle, 10 to 17 per cent. of starch, albumen, gum, sugar, extractive, lignin and salts of potassium and calcium.

It is used in flatulence, croup, whooping-cough, stomatis, asthma, chronic laryngitis, bronchitis and pains in chest. When taken in the fresh state it is a violent irritant to the mucous membrane, when chewed burning the mouth and throat.

MERCURIALS—Firmness prevailed with prices free from any tendency toward shading. This was in line with the lack of any sign of unsettlement in price of raw material. Consuming requirements of quicksilver were still in excess of the visible supply of metal being produced on the Pacific Coast. Prices for metal ranged from $75.00 to $77.00 per flask which was a shade under cost to import metal from Europe. The situation on the Coast was little changed there being no unsold surplus likely to come on the market later to cause unsettlement of the price structure.

THYMOL—Advances to from $1.85 to $1.95 per pound as to quantity. This covered increase in cost to produce and placed this item in a more favorable position.

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Essential Oils

What price changes there were in the oil market last month were advances. The drought hit the middle west again damaging the growing crops still further. Tansy, pennyroyal and dill oils were higher along with spearmint and peppermint. The citrous oils were stronger in most respects and the floral oils were also quite firm after the advances recorded during the last trading period.

PEPPERMINT—Spot market advanced again. Natural oil sold for $3.75 per pound and redistilled oil for $3.90. This followed payment of higher prices to dealers in the country.

Reports from Michigan state that the planted acreage in the St. Johns area is somewhat larger than it was last year, but the condition of the crop is very backward and the peppermint plants in old mint fields are small and ordinarily these mint fields would be ready to harvest the latter part of July. There has been a little damage done to the mint by the high winds, so the stand in some fields is not very good. In other places, the fields are in good shape so far as the stand is concerned, but the information and indications of the crop are to the effect that there will probably not be over 50 per cent of the yield of oil as compared with the 1933 crop. It is reported that the peppermint in the southwest section of the state is in very much worse condition than it is in the St. Johns area. The St. Johns area at the present time is growing the larger portion of the entire crop of the state.

SPEARMINT—Reports from the middle west are discouraging as concerned the probable output. Drought cut heavily into the new crop so that most of the primary market holders of stocks are inclined to withdraw offerings while awaiting further developments. On spot the market reflected this condition being advanced to the basis of $2.25 per pound.

TANSY—Prices were very firm in all respects. Those with holdover stocks took stronger view on the future market. Some dealers were inclined to withdraw offers and await further developments from the primary market. An advance is generally considered to be eminent.

BOTANICAL COLLECTOR'S DEPOT

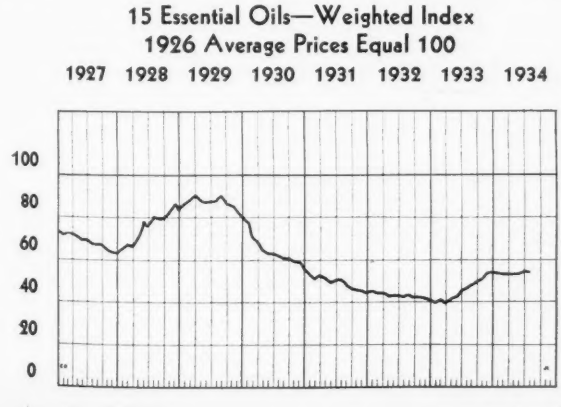
Imports of essential oils into the United States for the 4 months ended April 1934 were valued at $1,431,000, as against $780,000 for a similar period during 1933. Exports of various American essential oils for the first quarter of 1934 were valued at $650,000, as against $479,000 for an equivalent period during 1933.

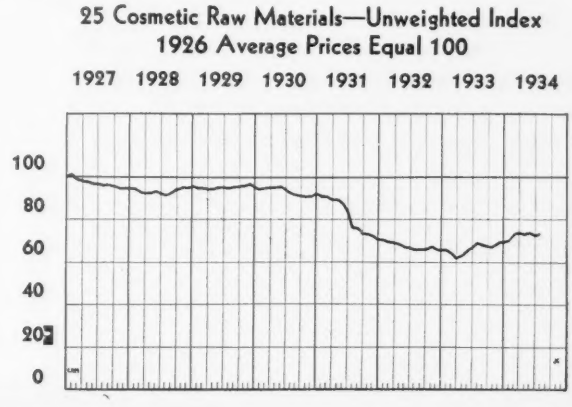
CITRONELLA—Spot business continued to be done under highly competitive conditions. Ceylon oil sold lower at 28c to 30c per pound. The primary market was steady but little business was placed for import.

Imports of citronella and lemongrass oil into the United States during the first 5 months of 1934 amounted to 718,000 pounds valued at $253,000, as against 590,000 pounds valued at $196,000 during the equivalent period of 1933.

ROSEMARY—The finest rosemary oils are those produced on the island of Hvar, (Yugoslavia), where more or less modern methods of distillation are employed. The usual methods of production of rosemary oil, however, are quite primitive. From 1.5 to 1.8 kilos of oil are obtained from 100 kilos of rosemary leaves. The annual output of rosemary oil shows great variation, and ranges from 7,000 to 25,000 kilos. The smaller distilleries usually sell their oil to local merchants who in turn sell to firms in Trieste. There are two associations, one on the Island of Hvar, and on the Teljesac peninsular which sell their output direct to German and Czechoslovak firms. One of the reasons why Yugoslav rosemary oil is of a lower quality than French or Spanish oils is that in the latter countries only the tender leaves are used, whereas older leaves are collected with the younger ones in Yugoslavia.

ANISE—U. S. P. oil is in a very firm position. Cost to replace justified the recent advance to the basis of from 45c to 48c per pound.





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C12 (Laurinic)	lb.	41.00	42.00
C12 (Methyl Nonyl Acetic)	lb.	18.00	20.00
C14	lb.	8.50	14.00
C16	lb.	9.25	16.00
C18	lb.	35.50	36.00
Almond Meal	lb.	.18	.19
Almond Oil, Bitter	lb.	3.00	3.20
Sweet	lb.	.75	.78
Aloes, Curacao	lb.	.15	.16
Aloin	lb.	1.00	1.05
Amaranth No. 107	lb.	2.80	2.90
Amber Oil, Rectified	lb.	.55	.60
Liquid	lb.	2.20	2.30
Ambergris	oz	25.00	30.00
Amidopyrine	lb	4.00	4.10
Ammonium Borate	lb.	.35	.35½
Bromide	lb.	.39	.40
Carbonate	lb.	...	.12
Citrate	lb.	.80	.86
Ichthyolate	lb.	4.00	4.50
Iodide	lb.	3.55	3.60
Salicylate	lb.	1.15	1.20
Valerate	lb.	2.75	2.90
Amyl Acetate	lb.	.70	.75
Butyrate	lb.	1.05	1.50
Cinnamate	lb.	9.50	9.75
Cinnamic Aldehyde	lb.	3.75	4.00
Formate	lb.	...	1.75
Phenyl Acetate	lb.	4.50	5.00
Salicylate	lb.	.65	1.25
Anethol	lb.	1.00	1.10
Angostura Bark	lb.	.28	.29
Anise Seed Star	lb.	.12½	.13
Spanish	lb.	.15½	.16
Anise Oil, USP	lb.	.45	.48
Anisic Aldehyde	lb.	3.00	3.50
Antipyrine	lb.	2.00	2.05
Apomorphine Hydrochloride	oz.	23.70	23.95
Apricot Kernel Oil	lb.	.27	.30
Arabic Gum, Powd., USP	lb.	.14	.18
Sorts, Amber	lb.	.10	.12
White No. 1	lb.	.20	.21
Seconds	lb.	.17	.18
Arnica Flowers	lb.	.14	.15
Arrowroot	lb.	.09	.09½
Asafoetida	lb.	.22	.23
Atropine Alk	oz.	5.25	5.50
Atropine Sulfate	oz.	2.50	2.55
Balsam Copaiba Para	lb.	.26	.28
Balsam Peru	lb.	...	Nom
Balsam So. Amer., USP	lb.	.28	.30
Balsam Tolu	lb.	.60	.70
Barberry Bark	lb.	.16	.18
Barbital	lb.	3.25	3.35
Bay Oil	lb.	1.40	1.50
Bay Oil, Terpeneless	lb.	3.75	4.00
Bay Rum	gal.	.75	.90
Beeswax, White	lb.	.34	.36
Belladonna Leaves	lb.	.22	.23
Benzaldehyde	lb.	1.25	1.35
Benzocaine	lb.	5.00	5.75
Benzoic Acid	lb.	.53	.58
Benzoin Gum, Siam	lb.	1.05	1.50
Benzoin Gum, Sumatra	lb.	.20	.22
Benzonaphthol	lb.	2.50	2.60
Benzophenone	lb.	1.50	2.00
Benzol Chloride	lb.	1.00	1.05
Benzyl Acetate	lb.	.60	1.00
Alcohol	lb.	.85	1.15
Benzoate	lb.	1.10	1.20
Cinnamate	lb.	6.00	6.20
Formate	lb.	2.75	3.50
Propionate	lb.	2.25	2.40
Salicylate	lb.	3.50	3.75
Succinate	lb.	5.25	5.50
Bergamot Oil	lb.	1.70	1.90
Terpeneless	lb.	6.25	8.00
Birch Oil, Southern	lb.	...	1.85
Sweet, Northern	lb.	3.00	3.10
Birch Tar, Oil	lb.	.70	.75
Bismuth Ammonium Citrate	lb.	...	3.35
Chloride	lb.	...	2.85
Citrate	lb.	...	2.70
Nitrate	lb.	...	1.30
Oxychloride	lb.	...	3.05
Subcarbonate	lb.	1.80	1.93
Subgallate, USP	lb.	1.75	1.88
Subiodide	lb.	...	4.08
Subnitrate	lb	1.55	1.68
Bismuth			
Subsalicylate	lb.	2.55	2.66
Salicylate	lb.	...	1.85
Tannate	lb.	...	2.32
Bois de Rose, Brazilian	lb.	1.35	1.45
Cayenne	lb.	2.75	3.15
Borax, crys	lb.	...	.04½
Boric Acid	lb.	.07	.08
Borneol	lb.	1.75	2.00
Bornyl Acetate	lb.	1.75	2.60
Brilliant Blue, FCF	lb.	13.00	13.50
Bromoform	lb.	1.75	1.90
Bromstyrol	lb.	4.00	4.25
Buchu Leaves, Short	lb.	.35	.36
Buckthorn Bark	lb.	.06	.07
Burdock Root	lb.	.13	.14
Cade Oil	lb.	.32	.38
Caffeine Alkaloid	lb.	2.20	2.30
Caffeine Citrated	lb.	1.80	1.85
Caffeine Salicylate	lb.	...	2.95
Cajuput Oil	lb.	.55	.65
Calamus Oil	lb.	3.25	3.50
Calcium Bromide	lb.	...	.60
Carbonate	lb.	.05	.06
Gluconate	lb.	.47	.52
Glycerophos	lb.	...	1.15
Hypophosphite	lb.	.55	.60
Lactate	lb.	.35	.40
Sulfide	lb.	.21½	.24
Camphor, Japanese	lb.	.53	.54
Camphor Oil Sassafrassy	lb.	.20	.21
White	lb.	.23	.25
Cananga Oil, Native	lb.	2.00	2.10
Rectified	lb.	2.50	2.60
Candelilla Wax	lb.	.14	.15
Cannabis	lb.	.16	.23
Cantharides, Chinese	lb.	1.25	1.30
Caraway Oil	lb.	1.95	2.15
Cardamom Oil	lb.	11.00	24.00
Carnauba Wax No. 1	lb.	.35½	.36
Carvol	lb.	4.00	4.50
Cascara Amarga	lb.	1.25	1.30
Cascara Sagrada	lb.	.09	.11
Cascarilla Bark	lb.	.60	.65
Cascarilla Oil	lb.	56.00	70.00
Casein, edible	lb.	.45	.55
Cassia Oil, Redist	lb.	1.15	1.20
Castor Oil, Odorless	lb.	...	.12
Cedar Leaf Oil	lb.	.72	.77
Cedar Wood Oil	lb.	.26	.30
Celery Oil	lb.	11.00	15.00
Ceresin Wax	lb.	.08	.12
Chalk, Eng. light	lb.	...	.04½
Chalk, heavy	lb.	...	.04½
Chalk, Precip., light	lb.	...	.04½
Chamomile Flowers, Hungarian	lb.	.35	.37
Roman	lb.	.70	.75
Chaulmoogra Oil	lb.	...	1.50
Chloral Hydrate	lb.	.80	.85
Chloroform, USP	lb.	.30	.33
Chlorophyll	lb.	3.75	4.00
Cholesterin	lb.	11.00	17.00
Chrysarobin	lb.	3.50	3.55
Cinchonidine Sulfate	oz.	.45	.47
Cinchonine Alkaloid	oz.	.50	.58
Cinchonine Sulfate	oz.	.34	.36
Cinchophen	lb.	2.75	3.25
Cinnamic Acid	lb.	3.45	4.50
Cinnamic Alcohol	lb.	3.75	4.00
Cinnamic Aldehyde	lb.	1.75	2.10
Cinnamon	lb.	10.00	17.50
Citral	lb.	2.75	3.25
Citric Acid	lb.	...	.28
Citronella Oil, Ceylon	lb.	.28	.30
Java	lb.	.38	.42
Citronellol	lb.	2.55	3.00
Citronelyl Acetate	lb.	4.00	4.50
Civet	oz.	2.60	3.50
Clove Oil	lb.	.95	1.00
Cocaine Alkaloid	oz.	...	12.57
Cocaine Hydrochloride	oz.	9.75	10.00
Cocoa Butter	lb.	.22	.24
Codeine Alkaloid	oz.	11.70	12.45
Hydrobromide	oz.	...	8.92
Hydrochloride	oz.	10.50	10.55
Nitrate	oz.	...	9.80
Phosphate	oz.	9.00	9.05
Salicylate	oz.	...	8.25
Sulfate	oz.	10.50	10.55
Cod Liver Oil	drs.	24.00	27.00
Cohosh Root	lb.	.06	.07
Colchicine Alkaloid	oz.	...	22.00
Colchicine Salicylate	oz.	...	35.50
Collodion	lb.	.13	.14
Colocynth Pulp	lb.	.26	.28
Coltsfoot Leaves	lb.	.09	.10
Coriander Oil	lb.	...	3.00
Coumarin	lb.	3.25	3.50
Cream Tartar	lb.	.19½	.19½
Creosote, USP	lb.	.45	.47
Cresol, USP	lb.	...	.18½
Cubebs	lb.	2.50	2.80
Culvers Root	lb.	.17½	.18½
Cumin Oil	lb.	7.50	9.00
Cumin seed, Morocco	lb.	.13½	.14
Damiana Leaves	lb.	.24	.25
Dandelion Root	lb.	.18	.19
Deer Tongue Leaves	lb.	.07½	.09
Digitalis Leaves	lb.	.32	.34
Dill Oil	lb.	4.25	6.00
Dimethyl Anthranilate	lb.	12.25	12.50
Benzyl Carbinol	lb.	...	16.00
Hydroquinone	lb.	3.25	3.50
Dover's Powder	lb.	2.75	2.80
Duodenal substance	lb.	...	3.75
Echinacea Root	lb.	.17	.18
Elder Flowers	lb.	.15	.16
Elemi Gum	lb.	.11½	.12½
Elm Bark	lb.	.17	.18
Emetine Hydrochloride	oz.	15.00	15.25
Ephedra Vulgaris	lb.	.05	.06
Ephedrine, Alkaloid	oz.	1.50	1.90
Hydrochloride	oz.	1.30	1.65
Sulfate	oz.	1.30	1.65
Epsom Salts	100 lb.	2.25	2.50
Ergot	lb.	.40	.47
Erigeron	lb.	1.25	1.45
Erythrosine No. 517	lb.	17.00	17.50
Eserine Alkaloid	oz.	42.00	42.25
Eserine, Salicylate	oz.	23.00	23.25
Ether, USP	lb.	...	.12
Ethyl Acetate	lb.	.09	.10
Anthranilate	lb.	9.25	9.50
Benzoate	lb.	1.25	1.50
Butyrate	lb.	1.80	2.00
Caproate	lb.	3.25	3.50
Chloride	lb.	.22	.24
Cinnamate	lb.	4.00	4.50
Formate	lb.	1.00	1.25
Phenyl Acetate	lb.	3.75	4.00
Salicylate	lb.	1.95	2.00
Valerate	lb.	...	3.75
Eucalyptol	lb.	.65	.70
Eucalyptus Leaves	lb.	.05	.06
Eucalyptus Oil	lb.	.29	.31
Eugenol	lb.	2.00	2.50
Fennel	lb.	1.15	1.40
Formaldehyde, USP	lb.	.07	.07½
Galbanum Gum	lb.	.75	.80
Gall Extract	lb.	.20	.21
Gamboge Gum	lb.	.60	.65
Gentian Root	lb.	.10	.11
Geraniol	lb.	1.50	3.00
Geranium Oil, African	lb.	5.75	7.50
Bourbon	lb.	5.50	6.40
Geranyl Acetate	lb.	2.95	3.00
Butyrate	lb.	13.00	13.50
Formate	lb.	12.00	12.50
Gingergrass Oil	lb.	2.50	2.70
Ginger Oil	lb.	4.00	4.25
Glycerin, CP	lb.	.13¾	.14
Glycerophospheric Acid 25%	lb.	1.40	1.75
Golden Seal Root	lb.	1.05	1.10
Grape Fruit Oil	lb.	2.75	3.00
Guaiac Gum	lb.	.20	.22
Haarlem Oil	gross	...	3.25
Heliotropin	lb.	2.00	2.30
Hellebore Root, Black	lb.	.08½	.09
White	lb.	.08	.09
Helonias Root	lb.	.25	.27
Hemlock Oil	lb.	.70	.85
Henbane Leaves, USP	lb.	.17	.18
Henna Leaves	lb.	.08	.09
Hexamethylenetetramine	lb.	.46	.47
Horehound Herb	lb.	.08	.09
Hydrangea Root	lb.	.06	.07
Hydrastine Alkaloid	oz.	9.00	9.50
Hydrochloride	oz.	9.00	9.50
Sulfate	oz.	11.00	11.50
Hydrastinine Hydrochloride	oz.	22.50	23.00
Hydrogen Peroxide, USP	lb.	.06	.06½
Hydroscine Hydrobrom, USP	oz.	35.00	35.00
Hydroxycitronellal	lb.	2.90	3.50
Iceland Moss	lb.	.09	.10
Indol	oz.	2.90	3.00
Iodine, crude	lb.	15s ld.	per kilo
Resublimed	lb.	...	2.25
Tincture	gal.	...	2.75
Ionone	lb.	4.00	4.50
Alpha	lb.	9.50	9.65
Beta	lb.	6.75	7.00
Methyl	lb.	5.75	6.00
Iodoform, powd	lb.	...	4.62
Ipecac Root	lb.	.70	.75
Irish Moss	lb.	.14	.15
Iron & Ammonium Citrate	lb.	.52	.53
Iron Chloride, USP, lump	lb.	.06	.08
Citrate	lb.	.84	.89
Hypophosphite	lb.	1.45	1.50
Phosphate	lb.	...	.69
Potassium Oxalate	lb.	.32½	.4
Pyrophosphate, USP	lb.	.74	.80
& Sodium Oxalate	lb.	.27½	.28
Sulfate	lb.	.04	.04½
Sulfate Ferrous, dried	lb.	...	.08
Iso Butyl Benzoate	lb.	3.75	4.00
Iso Eugenol	lb.	4.00	4.50
Iso Safrol	lb.	1.75	1.85
Isopropyl Alcohol	gal.	.80	.85
Jaborandi Leaves	lb.	.11	.12½
Jalap Resin	lb.	...	4.00
Jalap Root	lb.	.14	.16
Japan Wax	lb.	.06½	.07
Juniper Berry Oil	lb.	1.50	3.50
Juniper Wood Oil	lb.	.50	.60
Kaolin	lb.	.05	.08
Kaolin, Colloidal	lb.	.09	.12
Kamala	lb.	.22	.23
Karaya Gum	lb.	.10	.30

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Labdanum Oil	lb.	5.50	6.00
Lactic Acid, USP	lb.	.49	.51
Lanolin	lb.	.15	.18
Lavender Oil	lb.	3.75	6.00
Lavender Spike Oil	lb.	.90	1.60
Lead Acetate	lb.	.10½	.11½
Lecithin, animal	lb.	16.00	20.00
Vegetable	lb.	1.00	2.50
Lemon Oil, California	lb.	...	.50
Italian	lb.	1.05	1.35
Lemon Grass Oil	lb.	1.00	1.25
Lemon Peel	lb.	.10	.11
Licorice Compound Powder	lb.	.29	.40
Licorice Extract Mass	lb.	.19½	.20
Licorice Root	lb.	.12	.15
Lime Oil, distilled	lb.	6.25	7.00
Expressed	lb.	9.25	11.50
Linaloe Oil, Mex	lb.	1.40	1.50
Linalol	lb.	2.00	4.00
Linalyl Acetate	lb.	2.00	3.50
Benzoate	lb.	13.00	14.00
Formate	lb.	10.50	12.00
Lithium Carbonate	lb.	1.25	1.35
Citrate	lb.	1.40	1.50
Liver Extract 1-20	lb.	...	5.75
Lobeline Sulfate	oz.	...	8.75
Lycopodium	lb.	.32	.34
Mace Oil, distilled	lb.	1.25	1.30
Magnesium Carbonate	lb.	.08½	.09
Glycerophosphate	lb.	3.20	3.25
Hypophosphite	lb.	1.35	1.40
Oxide	lb.	.35	.45
Stearate	lb.	.18	.20
Malva Flowers, blue	lb.	.55	.60
Mandarin Oil	lb.	4.00	4.25
Manganese Glycerophosphate	lb.	2.60	2.65
Manganese Iodide	lb.	5.30	5.35
Manna, large	lb.	1.00	1.25
Manna, small	lb.	.55	.60
Mastic Gum	lb.	.55	.58
Menthol	lb.	2.85	2.95
Synthetic	lb.	2.25	2.65
Mercury Bichloride	lb.	.88	.96
Bisulfate	lb.	...	1.48
Calomel	lb.	...	1.31
Iodide	lb.	3.70	3.95
Red Precip. Powd	lb.	...	1.44
Salicylate	lb.	...	2.32
White Precip	lb.	...	1.51
Methyl Acetophenone	lb.	2.00	2.15
Anthranilate	lb.	2.15	2.25
Benzoate	lb.	1.25	1.35
Cinnamate	lb.	3.35	4.00
Heptenone	lb.	3.50	4.00
Paracresol	lb.	4.50	8.00
Phenylacetate	lb.	2.50	2.75
Salicylate	lb.	.40	.43
Mineral Oil, Russian	gal.	.78	1.03
Mineral Oil, White	gal.	.56	.99
Montan Wax	lb.	.10½	.11
Morphine Alkaloid	oz.	11.15	11.20
Acetate	oz.	8.80	8.85
Ethyl Hydrochloride	oz.	10.55	10.60
Hydrobromide	oz.	8.75	8.80
Hydrochloride	oz.	8.85	9.10
Sulfate	oz.	8.75	8.80
Mullein Flowers	lb.	1.00	1.05
Mullein Leaves	lb.	.07	.08
Musk Ambrette	lb.	6.00	6.25
Musk Ketone	lb.	7.55	7.80
Musk Root	lb.	.06	.07
Musk Tonquin	oz.	18.00	22.00
Musk Xylene	lb.	2.25	2.85
Mustard Oil	lb.	8.50	9.00
Artificial	lb.	1.95	2.05
Myrrh Gum	lb.	.25	.26
Naphthalene Flake	lb.	.04½	.05
Neo-cinchophen	lb.	15.00	18.00
Nerolin	lb.	1.40	1.50
Neroli Oil, Artificial	lb.	5.00	15.00
Neroli Oil, Bigarade	lb.	85.00	100.00
Neroli Oil Petale	lb.	90.00	125.00
Nutmeg Oil	lb.	1.25	1.30
Nux-Vomica Buttons	lb.	.06	.07
Oleoresin Aspidum	lb.	...	1.25
Capsicum	lb.	2.25	3.25
Cubeb	lb.	2.30	2.60
Ginger	lb.	2.20	2.70
Orris	lb.	7.50	13.00
Vanilla	lb.	6.00	7.00
Olibanum Gum, siftings	lb.	.07	.07½
Tears, No. 1 extra	lb.	.19	.21
Olive Oil, Edible	gal.	1.45	1.65
Orange Oil, American, cold pressed	lb.	...	1.75
American, dist	lb.	...	.60
Bitter	lb.	1.60	1.45
W. Ind	lb.	1.80	1.90
Italian	lb.	1.90	2.20
Orchic Substance (Testicular)	lb.	...	3.75
Origanum Oil	lb.	.25	.27
Orris, Oil Concrete	oz.	3.50	4.00
Orris Root, Flor	lb.	.11	.12
Verona	lb.	.08	.09
Ovarian Residue	lb.	...	10.00
Ovarian Substance, whole	lb.	...	12.50
Oxgall Powder	lb.	...	1.25
Oxgall Purified	lb.	2.00	2.50
Oxgall USP Extract	lb.	1.80	1.90
Oxyquinoline Sulfate	lb.	3.50	4.75
Ozokerite Wax, Green, hard	lb.	.33	.40
White	lb.	.32	.45
Yellow	lb.	.24	.35
Pancreatin	lb.	...	1.90
Papain, Pure, powdered	lb.	4.50	4.75
Para-Aldehyde	lb.	.48	.50
Paracresol Methyl Ether	lb.	3.25	3.50
Paracresyl Acetate	lb.	4.25	4.50
Para-Cymene	gal.	2.25	2.50
Paraffin Wax	lb.	.05½	.09
Parsley Oil	lb.	8.25	8.50
Passion Flower	lb.	.08	.09
Patchouli Leaves	lb.	.15	.16
Patchouli Oil	lb.	3.25	4.00
Pennyroyal Herb	lb.	.08	.09
Leaves	lb.	.12	.13
Pennyroyal Oil	lb.	2.00	2.30
Pepper Black	lb.	...	6.00
Peppermint Oil, Natural	lb.	3.75	4.05
Peppermint Oil, Redis	lb.	3.90	4.10
Pepsin, USP	lb.	2.25	6.50
Peptone	lb.	...	1.25
Petit Grain Oil, S. A	lb.	1.10	1.20
Petrolatum, Lily white	lb.	.08½	.09½
Petrolatum, Snow white	lb.	.09½	.10½
Phenobarbital	lb.	5.25	5.50
Phenolphthalein, USP	lb.	.52	.60
Phenolphthalein, Yellow	lb.	...	.47
Phenylacetaldehyde	lb.	5.00	8.25
Phenylacetic Acid	lb.	2.25	2.50
Phenyl Diacetate	oz.	3.00	3.25
Ethyl Acetate	lb.	5.00	5.50
Ethyl Alcohol	lb.	3.85	4.10
Ethyl Butyrate	lb.	11.00	12.00
Ethyl Formate	lb.	19.00	21.00
Ethyl Propionate	lb.	10.00	12.00
Ethyl Valerate	lb.	14.00	15.00
Methyl Carbinol	lb.	...	10.00
Methyl Carbinol Acetate	lb.	...	10.50
Propyl Alcohol	lb.	5.50	6.00
Propyl Aldehyde	lb.	...	12.00
Phosphoric Acid	lb.	.14	.15
Pilocarpine Hydrochloride	oz.	2.50	2.75
Pilocarpine Nitrate	oz.	2.40	2.65
Pimento Berry Oil	lb.	2.15	2.40
Pimento Leaf Oil	lb.	1.15	1.30
Pine Needle Oil	lb.	.95	1.00
Pinus Pimulio Oil	lb.	2.00	2.05
Pinus Sylvestris Oil	lb.	1.40	2.00
Piperadine	lb.	...	8.00
Pituitary Substance, whole		...	40.00
Anterior Lobe		...	39.00
Plantago, Seed, Blonde	lb.	.05½	.06
Ponceau 3R No. 56	lb.	5.75	6.00
Podophyllin	lb.	3.00	3.25
Poppy Flowers	lb	.35	.40
Potassium Acetate	lb.	.26	.30
Bicarbonate	lb.	.07½	.08
Bromide	lb.	.35	.36
Citrate	lb.	.38	.42
Guaiacol Sulfonate	lb.	1.65	1.70
Hypophosphite	lb.	.65	.70
Iodide	lb.	...	1.65
Lactophosphate	lb.	...	.90
Permangan	lb.	.18½	.19
Phosphate Dibasic	lb.	...	.49
Salicylate	lb.	...	1.18
Sulfate	lb.	.13	.15
Sulfocyanide	lb.	...	.50
Tartrate	lb.	...	.65
Prickly Ask Bark	lb.	.12	.15
Prickly Ash Berries	lb.	.20	.21
Psyllium Seed, Black	lb.	.10½	.12½
Pyrethrum Flowers	lb.	.28	.30
Quince Seed, Persian	lb.	.85	1.25
Spanish	lb.	.60	.65
Quinidine Alkaloid	oz.	.96	1.02
Sulfate	oz.	...	.67
Quinine Bisulfate	oz.	...	.61
Citrate	oz.	...	.81
Dihydrobromide	oz.	...	.84
Dihydrochloride	oz.	...	.84
Glycerophosphate	oz.	...	1.23
Hypophosphite	oz.	...	1.01
Phosphate	oz.	...	.92
Salicylate	oz.	...	.82
Sulfate	oz.	.51	.61
Rennet	lb.	...	3.75
Resorcinol	lb.	1.60	1.70
Rhatany Root	lb.	.11	.12
Rhodinol	lb.	6.00	8.25
Rhubarb Root HD	lb.	.25	.26
Rice Starch	lb.	.09	.10
Rochelle Salt	lb.	.14½	.15
Rosemary Oil	lb.	.38	.48
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French	lb.	14.00	17.00
Rue Herb	lb.	.16	.18
Rue Oil	lb.	2.60	2.85
Sabadilla Seed	lb.	.33	.34
Saccharin	lb.	1.70	1.80
Saffron American	lb.	.25	.26
Saffron Valencia	lb.	11.00	11.25
Safrol	lb.	.46	.48
Sage Oil, Dalmatian	lb.	2.40	2.50
Salicylic Acid	lb.	.40	.45
Salol	lb.	.90	.95
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Santonin	lb.	25.00	31.00
Saponin	lb.	1.45	1.50
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Mexican	lb.	.14	.16
Sassafras Bark	lb.	.14	.16
Sassafras Oil	lb.	.90	1.05
Sassafras Oil, Artificial	lb.	.41	.43
Savin Oil	lb.	2.00	2.50
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Saw Palmetto Berries	lb.	.07	.08
Scammony Resin	lb.	1.30	1.35
Scammony Root	lb.	.06	.07
Seidlitz Mixture	lb.	.12½	.12¾
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Senna Alex	lb.	.20	.25
Senna Half Leaf	lb.	.08	.10
Senna Tinnevelly, Bold	lb.	.11	.13
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Proteinate	oz.	.29	.31
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Soap Bark, cut	lb.	.09	.10
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Neutral powd	lb.	.18½	.20½
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Bromide	lb.	.36	.37
Citrate	lb.	...	.31½
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Hypophosphite	lb.	.60	.65
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Stramonium Leaves	lb.	.20	.21
Strontium Bromide	lb.	.52	.53
Strychnine Alkaloid	oz.	...	.63
Glycerophosphate	oz.	...	.76
Hypophosphite	oz.	...	.86
Phosphate	oz.	...	.76
Sulfate	oz.	...	.54
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Turpentine Venice True	lb.	.35	.36
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